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THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

To our Patrons.

WE would tender our acknowledgments to our friends and subscribers generally, for the prompt manner in which their subscriptions have been renewed, giving us a gratifying increase in the number of names over those of the same period last year. We are also much indebted for the number and value of the communications we have received; and to which we shall give a place as fast as possible. The generous support we are receiving, and the interesting papers with which we are favored from various quarters, must be considered a gratifying proof that attention to the theory and practice of Agriculture, is not likely to suffer a decline.

The State Agricultural Society.

AT the last meeting of the Executive Committee of the State Agricultural Society, it was determined, in order to give more unity and concert of action to the friends of agriculture, and more efficiency to the operations of the State Society, to appoint, in accordance with the 4th section of the Constitution, a General Committee for the several Counties, to aid in carrying into effect the objects contemplated in the organization of the Society. It has been the intention of the Executive Committee to select gentlemen of known zeal and fidelity in the great cause of Agriculture, who, if they are not so already, will not only become members themselves, but use their influence in inducing others among their friends and acquaintances to become members also. To give efficiency to the institution, to raise the funds necessary for distribution as premiums at the annual or semi-annual meetings of the Society—in short, to make it an honor to the State, has been the intention of these appointments; and it is hoped each of the gentlemen named, as well as the other officers of the Society, will exert himself to accomplish the object aimed at. The terms of membership, (one dollar only, annually,) may be seen in the March number of the Cultivator; and it is confidently believed, that with proper effort in adding to the list of members, with the appropriation which the bill now before the legislature allows, and which we think will scarcely be withheld, the Society will be placed on a permanent base, and in a position worthy of the agriculturul resources and capabilities of the Empire State.

The Hereford Prize Cow.

We have a letter from our friend, JOSEPH COPE of East-Bradford, Pa. in relation to the statement made by Mr. SOTHAM, (p. 176, vol. 7,) that a "Hereford cow won the first prize, as the best cow for dairy purposes of any breed, at the great show of the Royal Agricultural Society at Oxford in 1839." Mr. Cope doubts this fact, and to show that such was not the case, he gives a detailed list of all the awards of prizes to cattle at that show, quoting from a newspaper and pamphlet account in his possession. We have compared Mr. C.'s account, with that published in the *Farmer's Magazine*, the organ of the society, and find it all correct, with the exception of so much as relates to the 5th class, in which there is no notice of the animal which took the FIRST prize. The FIRST PRIZE of 15 sovereigns, "for the best cow in milk, which shall in the opinion of the judges be best calculated for dairy purposes," was awarded "to the Rev. J. R. Smythie of Lynch Court, Hereford, for his Hereford cow, aged 9 years and 6 months." The second prize was awarded "to Joseph Badcock of Pyrton, for his Durham cow, aged 11 years and 2 months."

Acknowledgments, &c.

REPORTS of the Agricultural Meetings held by the Legislature of Massachusetts, prepared by Mr. COLMAN, Agricultural Commissioner.—These reports, prepared for the Boston Courier, by the Agricultural Commissioner of the state, furnish a valuable mass of facts, on most of the important topics of agriculture, communicated by the members of the legislature at their weekly meetings, and preserved by these notes of Mr. Colman. Such meetings we perceive have been adopted by the Maine Legislature, and we think may be advantageously imitated elsewhere. Of the facts so reported by Mr. Colman, we shall gladly avail ourselves; and for their presentation he has our thanks.

PATENT OFFICE, WASHINGTON.—The Commissioner of Patents at Washington, Mr. ELLSWORTH, has kindly forwarded us a lithograph view of the new building recently erected at that city for the use of the Patent office; and as a Repository or Gallery of Models and Manufactures. The immense apartment devoted to this purpose, 273 feet by 63, will soon present one of the most interesting places of resort for the farmer, the mechanic, or the manufacturer, to be found in this or perhaps any other country. It is to be hoped that every American wil take an interest and pride in contributing to the gallery whatever may be new in agriculture, science, or the arts.

"LIEBIG'S ORGANIC CHEMISTRY APPLIED TO AGRICULTURE."—We have the pleasure of acknowledging the receipt of a copy of the London edition of this work from our friend W. A. SEELY, Esq., Staten Island, one of the first practical, as well as theoretical farmers in the country. A valuable communication on the subject of Vegetable Nutrition, has also been receceived, and the notes which accompanied the volume have been read with pleasure. We have merely had time to glance over the pages of the volume; but what we have read, convinces us that Prof. Liebig, if not correct in all points, is far ahead of any other writer on the subjects he discusses, and that the work, when repulished in this country, will, as we intimated in our last, prove one of the most acceptable presents yet made to the agricultural public.

Since our notice in the last number, we have received a note from Prof. SILLIMAN, stating that he had learned from Boston, that Prof. WEBSTER of Harvard, had an edition of the Organic Chemistry already in press; and consequently he should not at present issue an edition, as announced in his Journal. Mr. Seely will accept our thanks.

BRITISH FARMER'S MAGAZINE.—G. C. THORBURN, Esq. of New-York, has forwarded us the January number of this quarterly. It is published in London, at about 75 cents per number of 150 pages each. This Journal is well conducted, but owing to its lacking the splendid engravings of the "London Farmer's Magazine," is not as generally known in this country as that Journal. The leading article is a valuable one on the chemical Physiology of Plants, based on Prof. Liebig's new work. The writer, Prof. GRAHAM, concedes great merit, as well as novelty to the work, and thinks it will have a decided influence in the advancement of agriculture.

Bone Manure.

GROUND bones are already used to some extent in this country as a manure, and as their value becomes better understood, this use will increase. As we have had several inquiries as to the mode of grinding and using them, and as we have heard of attempts to grind them in common millstones, which would give out an intolerable effluvia, we have thought some account of the English mode of grinding and using might be useful, and have for this purpose condensed a paper on the subject of bone dust in the 50th number of the Q. J. of Ag. by James Halkett of Perthshire, a gentleman long engaged in the bone trade, and familiar with its preparation and use.

Mr. Halkett says, "Bones are always crushed for manure by toothed cylinders, made of iron, of which some mills have three pairs, others two, and some only one. In Yorkshire, where bones are used extensively, they are ground into three sizes; the first is made to pass through a sieve of little more than a quarter of an inch calibre, the second is called half inch, but I have always found it too large to pass through a half inch sieve, and the third is an inch size, which is considered too large for turneps."

The first kind is usually called bone dust; but its effect is the least valuable of any of the three, as it consists mostly of earth and sand that have accidentally got into the bones that are broken or hollow, the rotten carious parts of them, and the old ones which go to powder on the least pressure. The second kind is mostly free from the impurities of the first, is longer in decomposing, and of course carries a crop of turneps or other roots through the season better than the first. The third kind is rarely used on roots, it being too coarse to produce the quick effect essential to their growth. Mr Halkett thinks the mixture of the first and second qualities in equal parts before sowing, or rather grinding the whole to that degree of fineness, makes the best preparation of bones, as the fine part is felt by the crops at once and hastens them forward while young, a very important point, and when this fails as it sometimes will do before the season closes, the coarser parts have begun to decompose and produce their proper nutritive effect on the plant.

The earliest mode of using bones was to sow the dust broadcast at the rate of from fifteen to twenty-five bushels per acre, but it has been found that by drilling in the dust with the seeds, at least two thirds of the quantity of bones formerly used is saved. In short, one of the greatest improvements of modern husbandry, is the drilling with the seeds such manures as bone dust and poudrette.

From what we have known of the action of bones, and of putrescent animal matter, we have been inclined to the opinion that bones owe much of their value as a manure to the gelatinous and fatty matter they retain, and Chaptal asserts that the extraction of the fat and gelatine from bones, as is done for making soups, soap, &c., deprives them of a great part of their fertilizing qualities. Such however, is not Mr. Halkett's belief. He says, "I find that numbers of agriculturists, and even scientific men, who have analyzed bones, are of the opinion that the marrow and fatty matter in them are of great use in their operation as a manure; and I must confess that at one time I was led to believe, from its plausibility, and what I thought a common sense view of it, that such was the case. But now after the test of experience, by numerous trials between what we call green bones with all the marrow and fat in them, and dry ones free from it, I have always found that the latter raised by far the best crops. Therefore I have arrived at the conclusion, that the less animal fat in them the better, and that the boiling of them before, crushing instead of injuring them, is a benefit."

In England the adulteration of bone dust, since it has become an article of prime necessity to the farmer, is carried on to a great extent. Lime from the tanner's vats, old plaster lime, soap boilers' waste, saw dust, slaked lime, rotten wood, and many other ingredients are incorporated and sold with the finer part of the dust, where of course it cannot be so easily detected as when the bones are more coarsely crushed. There might be bone dust, and poudrette, manufactured in the vicinity of all our large cities, in sufficient quantities to convert the whole region around them into a garden, as has already been done to some of those in Europe; and we are glad to see that efforts are making in this country to prevent the enormous waste of these fertilizing materials, and convert them extensively to their proper use. There is not a city, or even village of note in England, that has not its bone mill; and the quantity of bones collected since the saving of them has become an object, exceeds all previous conception. It would soon be so here, were their value as well understood, and their use as general.

"American Society of Agriculture."

WE publish this month two more communications on this subject—that of Mr. ROBINSON, written, it will be seen, before he saw Mr. GARNETT'S letter, published in the March number. Could such an institution be established with any tolerable prospect of success, no one would hail it with more pleasure than ourselves, but we must, notwithstanding the renewed request of our respected friend "Near Boston," decline to act as "leaders" in the formation of the proposed National Institution, while there are so many older and abler men enlisted in the cause to which we are devoted. We are glad to see the subject agitated, and highly approve the proposition of Mr. GARNETT, published in our last number, as we shall thereby probably learn how many of our agricultural friends are willing to attend the proposed Convention. We hope to hear the views of the Agricultural press generally on the subject. The donation of "Near Boston," will be returned to him or disposed of as he may direct.

WORK FOR THE MONTH.

In the month of April the farm labor of the husbandman may be said to commence. His flocks and herds, his fields and his garden, all now require, or begin to demand his constant supervision. His young animals now as well as his old ones, claim his care, and the least neglect on this point may occasion losses which a year of toil can hardly repair. Too many seem to suppose that because the snow is gone, and the cows or sheep are permitted to go into the fields, (a very bad policy at this season by the way,) therefore, less attention is necessary, and that they may safely be permitted to "shirk for themselves." Now no man who understands his true interests will do this. He is aware that animals need good looking to now as much as ever, and it is probable the inattentive farmer loses more of his stock in April than any other month in the year. Look then well to your animals; see that that expressive, but unfortunately too often appropriate phrase, "*poverty struck*," be not applicable to your creatures. One great secret of having first rate cattle, sheep, and swine, consists in keeping them in first rate condition at all times.

Plowing.

Do not plow when your land is not in a fit condition to work. Some soils, those of a light or porous kind, are ready for the plow as soon as the frost is out, but there are many of a clayey, heavy, or retentive kind, in which early plowing, or moving the soil while wet, would prove fatal to a crop. Such must remain until sufficiently dry to work without adhesion, or the labor upon them is worse than thrown away. To remedy such tendency to adhesion as far as practicable, they should be thoroughly underdrained, which will much reduce the period of time in which they cannot be worked. It is generally an excellent plan to plow heavy soils in the fall, while quite dry, as the winter's frost pulverizes them, and they are fit to work earlier than when left for spring plowing.

Spring Grains.

Spring wheat, barley, and oats, will succeed best when put into the earth as early as it can be properly fitted for their reception. Wheat when sown late is very apt to suffer from blight or rust, and give an inferior kernel; barley is injured by the extreme heat of our summers, unless its growth is so far advanced that such an effect cannot take place; and although oats will bear late sowing better than other grains, yet every farmer is aware that his heaviest crops and best berried oats are produced by early sowing. Some farmers who raise oats, select their most thistly fields and sow them as late as will admit the ripening of the grain. This late sowing, finds the ground in a state favorable to rapid and vigorous germination; and the check the late plowing gives the thistle, enables the young oats to attain the ascendancy, which they usually maintain through the season. This treatment is however, only palliative; it does not destroy the thistle; and as spring crops do more than any thing else to extend and perpetuate this pest of the farmer, we are convinced that summer fallows, without regard to spring grains, must be more generally adopted by tillers of the soil, if they would hope to have their lands continue fit to cultivate.

Peas.

Next to corn for making pork, in our estimation, ranks the pea; and in clean soils a crop of them may precede a wheat crop with advantage. Peas may be sown early; it matters little how early, as they are rarely injured by spring frosts, and they are the sooner fit to remove from the field where wheat is to be sown. Some important experiments made by Dr. Plummer last year, seemed to prove that peas might be subjected to the action of boiling water one minute without injury, but with the effect of destroying the larvæ of the pea bug, which in the fall or at the time of gathering is but just below the surface of the pea and is killed by the heat. We hope this experiment will be repeated, and should it prove successful, it will add much to the value of the pea crop in the country.

Flax.

This is one of the plants, the cultivation of which is too much neglected, and which is deserving the attention of all farmers. We are aware that cotton costs less than linen, but is it worth as much? And beside, is it certain the farmer's sons and daughters will be earning any thing to buy cottons with if there is no pulling, and dressing, and spinning flax? We would not be thought insensible to the charms of music; but we have a dim recollection of a kind that sounded much more like health, thrift and economy, than that of the harp or piano, and that was the music of the spinning wheel. Flax grows best in a cool, moist climate, and hence with us requires to be sown early, and on ground moist but not wet. Where flax can be dressed by machinery, as it can in many parts of our country, the flax crop, taken in connection with the seed, may be considered a valuable one for the farmer. There is no use, however, in attempting its growth in poor, exhausted soils, as it will succeed in none but those in good condition.

Corn.

We are inclined to the opinion that the agricultural census of the United States will show that, notwithstanding the vast quantity of wheat produced and its importance to the country, the great bread product of the nation is after all, corn. Certainly it will be so, if its capacity of feeding both man and beast is taken into consideration. April is the month in which preparation must be made for this staple crop. The manure should be spread and plowed in, and always remember that corn is one of the few cultivated plants that cannot be manured too high. Cold, wet land should never be planted to corn, and if necessary to cultivate such it should not be moved with the plow, until so dry as to fall to pieces, or be friable. There is many a piece of ground spoilt for the season, and the labor and crop lost, by being worked when too wet. The English make great use of the turnep, and it is a most valuable plant in proper soils and climates; but would the English grow the turnep as much as they do, if they with the same manure and labor could raise 70 or 100 bushels of corn to the acre? Give your manures invariably to your corn and root crops, and let these be followed by grain with grass seeds. Heavy manuring will make great wheat straw, but it will not give a plump fine berry; the manure must be thoroughly incorporated with the soil for that, and corn is the best crop for this purpose.

Sowing Plaster.

In the mind of the good farmer, plaster and clover is always connected with ideas of fertility and good crops. He accordingly uses both liberally; and while some may sneer at his expenses on this score, *he knows* that he finds his account in their use. The latter part of April is a good time to sow plaster, as the young grasses and grains have usually made their appearance and require its aid. It is better to apply plaster to land annually in lighter dressings, than only at intervals of several years, with heavier ones. Loamy, sandy, or gravelly soils, feel the influence of plaster most; it can be of little use on wet or strong clay lands. We have found that on such soils, ashes were better than plaster, the alkali tending to correct the acidity which generated sorrels and mosses. Never sell your ashes. We have known the quantity of grass doubled the first year on a meadow by the liberal use of leached ashes alone.

The Garden.

"A good garden is half a farmer's living," is an old saying that approaches very near the truth, and should stimulate to more attention than it usually receives. Good ground, thoroughly drained, rich and clean, plowed or dug deep, are the requisites of a garden. Compost manure is to be preferred, as it will be free from seeds of grass, weeds, &c. A garden is a minuature farm, and many experiments may be made in it, which may be repeated if desirable, on the farm, on a larger scale. Vegetables that are hardy or semi-hardy should be planted as early as the state of the earth will admit, or the danger from frost allow. Lettuces, peas, and in some situations, potatoes may be sown or planted, and furnish an early supply for the table. Onions, beets, carrots, and parsneps, should also be sown early; as the first require ample time to grow and ripen, and of the others double crops may be cultivated. Too many farmers think that work done in the garden is lost, but this is an error not to be tolerated for a moment. Directions on the most important topics of gardening will be found in the former volumes of the Cultivator; to which the reader will please to refer.

Sowing Grass Seeds.

Do not spare your clover and timothy seeds, in seeding land this spring. Timothy for stock is the most valuable grass grown, and for enriching land alone is indispensable. We sow our grass seeds as though we were throwing away money; an English farmer sows them as though using them liberally was the only, or the surest way to make money. We should be wise to take lessons of them in this respect. It shuts out weeds, makes a fine, even and sweet turf, and does much more to enrich the soil than a few straggling roots, left to struggle with the weeds as they best may.

Fences.

Never consider any thing has been properly done on the farm, or its business commenced, until every fence has been fully repaired, fallen rails replaced, walls that have been injured by the frost restored, and every precaution to prevent making unruly cattle and trouble among neighbors has been taken. Do what you do, well; be very careful not to undertake too much, and you can hardly fail of success.

Ayrshire Cows.

In a recent no. of the New-Bedford Mercury we observe a statement furnished by GEORGE RANDALL, Esq., of the produce in butter of an imported Ayrshire cow, a native cow, and a native heifer. The cows calved as follows: the first named, 20th of March; the second 22d of May; and the third on the 18th of June; and the milk was used for butter in each case about eight days after the cows calved. These two cows and the heifer, (the last two years old,) brought up four calves, and from April 1st to December 31st, made 622 pounds 5 ounces of butter, of a very superior quality. This is, unless we are mistaken, over seven pounds per week for each of the three cows during the entire season. Whatever other New-Bedford people may do, we are confident Mr. Randall does not feed his cows on "*beach grass, cods' heads, and mackerels' tails.*" Mr. Randall adds that he has imported three cows and two bulls of the pure Ayrshire blood, and beautiful animals he pronounces them to be. We are always glad to announce the arrival in this country of such stock, and from the present statement of Mr. Randall cannot doubt he will find an ample reward.

Correspondence and Inquiries.

Inquiry—Soil, and Rotation of Crops.

J. M. JOHNSON, Esq., of Hannibal, (Mo.) is informed that a soil, such as he describes, of a rich mold, with a subsoil tolerably porous and dry, and based on limestone, needs no analysis to prove its fertility. We think the rotation marked out for himself, a very judicious one, with the exception that for the spring crops after corn, we would substitute barley instead of oats, (barley being preferable to oats, before wheat,) and let oats take the place of the rye, leaving out that grain altogether. Mr. J. asks to what crop he must apply his manures? We answer to the roots and the corn certainly. These cannot be manured too much; but heavy manurings applied directly to wheat frequently cause more straw than grain. It will be best to mow the clover the first year of the rotation, and pasture the second. It is a good plan to sow timothy with clover. It gives a finer hay, and covers the earth more completely. Six pounds of clover seed and six or eight of timothy to an acre, will seed land very well; but it will be found safer to use more rather than less than this quantity in seeding.

Inquiry—Fish Manures.

Our friend "W. S." of Compton, R. I. inquires respecting the propriety of using fish as a manure. All animal matter has been derived from plants, and as these derive support from the air as well as the earth, so animal manures in decomposition give off their ammonia and carbonic gas for the use of plants, and the earths remaining are returned to the soil. All animal matter then must be a powerful stimulating manure, and when applied to a soil from which every thing in the shape of vegetable matter is taken and nothing returned, will, as a matter of course, soon leave it in a partially exhausted state. It seems to be natural to man to trust to one thing alone; forgetting that the processes of nature are combinations, which, he who would produce the same results, should aim to follow. Plaster, bones, and fish manure, have all been highly extolled on their first use, and then as bitterly condemned by those who used them constantly and neglected other manures. Plaster gave great crops, but when the vegetable matter in the soil was exhausted, plaster could not create plants. Those who have used plaster in connexion with clover, and a rotative system, instead of exhausting, have enriched their lands. So with bones; and so with fish manure. They are invaluable agents of fertilization; but will not prevent the exhaustion of soils, when relied upon exclusively as manures, or when the plants they are designed to stimulate are not furnished either by nature or the husbandman, with their proper pabulum or food.

The Chess Controversy.

This is a question which it seems will not 'stay put,' as we have several communications pro and con on the subject, which, as we cannot insert them entire, we must dispose of in this place; and first, our friend CHITTENDEN, of Michigan, who approaches the subject as a man who thinks, and is desirous to ascertain the truth. We extract the proposition he makes for the consideration of the readers of the Cultivator, trusting it may be carried into effect: "The manifest advantages of having this question settled, and the ease with which it may be accomplished, should stimulate every wheat grower in putting it beyond a doubt. Let a number of farmers in different sections of the country prepare a small piece of ground, from a quarter to an acre, by thorough fallowing, or some other way that will entirely free it from all foul seeds, then provide seed by sorting or picking from the bundle, that they may *know they sow nothing but pure wheat*. If the produce of this be nothing but wheat, let it be sown the following year upon land prepared in a similar manner, and if the result is equally favorable, a supply of pure seed would be obtained for themselves, and for others who would rather purchase pure wheat of their neighbors than sow foul seed of their own. Let the *proof* thus establishe be each year communicated to the editors of the Cultivator, and through their invaluable journal made known to the world."

"*A Subscriber*," from Ontario county, is very confident. We give two extracts: "The facts which I am about to relate, occurred in a field that had been sown several times with wheat that contained not a single particle of chess, nor any other foul seeds, for it was a practice of my own, that no foul trash should be sown."

* * * "In what manner the frost acts, whether directly or indirectly, to thus cause transmutation, is something that I cannot explain; yet it is something that will be understood, if it is agitated but a few years longer. An enlightened public will not permit the theorist or the logician to triumph over facts which will stand to the laws of nature if explained." We have, with DAVID THOMAS, been accustomed to believe that *pure wheat* was a scarce article, and our own observation and experience would induce us to think the first quotation must be read with some qualification. We have no doubt that facts will triumph; and facts, not suppositions or assertions, must decide.

The instances and arguments offered by our correspondent Mr. CRENSHAW of Va. in favor of transmutation, are such as have been urged and replied to so fully in the pages of the American Farmer, Genesee

Farmer, and Cultivator, that a repetition would be scarcely proper.

By the way, our agricultural friends, to whom the transmutation of wheat into chess appears so certain and easy, have an opportunity now offered to "make money," by a demonstration of their theory. In consequence of a new agitation of the matter in Virginia, the able editor of the Farmer's Register, Mr. RUFFIN, has offered a premium of $100 to the man who shall demonstrate the transmutation of wheat into chess, with the process of performing it. We believe, too, that Mr. Chapin's premium of $50 (see Genesee Farmer, vol. 2, page 310,) is still open for competition, so that the advocates of transmutation have every encouragement to advance *proofs* and institute experiments.

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Agriculture in Virginia—Value of Marl.

We give the following from a letter received from our friend, H. HARRISON, of Prince George county, Va.: "It is astonishing to witness the increased production merely from intermixing with the soil, what we familiarly call *marl*, an increase on many occasions of fifty per cent. Its *modus operandi* may form a fruitful theme of agricultural disquisition. It may depend upon the greater affinity which exists between the lime and the acid of the earth, and thus destroy the great obstacle to a successful culture; or a combination may ensue which proves the proper stimulus to the plant; or a compound be formed, perfectly soluble, which the plant assimilates to itself. To Mr. RUFFIN is awarded the merit of reviving from obscurity what had grown obsolete, if not of original application upon an extended scale with us.

"Some attention has been directed among us to the improvement of our stock of cattle and hogs. The improved Short Horns have been introduced among us, but some doubt is entertained whether they are fully adapted to our district, as our most inferior land is devoted to pasture, and the better kind to tillage. Indeed, it appears to be generally agreed, that so large a frame requires abundant grass to sustain it. The Berkshire hogs from Bement, Lossing, and Brentnall, have been introduced, and are considered to be vastly superior to our ordinary stock; for elegance and symmetry of form, for aptitude to take on fat they stand unrivaled; still there are other kinds among us, derived from England, but little inferior to them.

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Wisconsin Territory.

We yield a hearty concurrence in general to the views and opinions expressed by our correspondent (T. W. SIPPERLY) at Delavan, W. T. as to the excellence of that territory, and the adaptation of its soil and climate in particular, to emigrants from New-York and New-England. As a general rule, however, we are not the advocates of migration, but would prefer to see our large farms reduced to more comfortable dimensions, and cultivated in a better manner, rather than have so many of our young men leaving for the west for want of land to till. Small farms, and superior cultivation, will be best for all in the end. The recipes sent by Mr. S. will appear as we can find room for them.

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Principles of Breeding.

Our friend J. B. of Hildreth, O., in reply to our remarks on the concluding part of our Review of Walker on Intermarriage, is informed that we do not plead guilty to the charge of 'fastiliousness,' in respect to the discussion of such matters; but that we imagine every subject necessary to a full understanding of the questions at issue among breeders, may be treated in such a manner as to divest it of all indelicacy, or any thing which shall render it unfit for a journal intended for general reading, and which should be a welcome visitor to every member of a family. There are, however, some topics, which the general, and *correct*, opinion of mankind, has excluded from popular discussion, and confined to works devoted to such subjects; and of these, those relating to the theories of procreation have always held a distinguished place. While, therefore, our columns are open for the discussion of all topics, when treated in a proper manner, we shall reserve the right of deciding on this point; and knowing as we do, that national degradation has always followed in the wake of female demoralization, we shall not hesitate to exclude any papers, or condemn any book, however valuable in other respects, that have a tendency to such a result.

We do not agree with J. B., that there is no *nervous* connection between the mother and the embryo; we doubt the position that the *quality* of the blood derived from the parent has no effect in determining the physical character of the progeny; and we must be permitted to question whether, where a full blood Berkshire is crossed with a common sow, some of the pigs will be full blood Berkshire, some entirely of the common kind, and others of various grades. The question asked by J. B. whether "the structure of the grandparent is ever transmitted to the grandchild, without being possessed by the parent?" would seem to receive some support from the fact, that in hereditary insanity, cases not unfrequently occur, in which the child escapes, and the disease reappears in the grandchild.

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Lusus Naturæ.

J. M. IRWIN, in a letter to the Cultivator, has described a singular freak of nature. A cow was killed for beef, and the calf, then in the fifth month, was taken from her. On examination it was found that the animal had two perfect heads, connected with a single neck, and each brain contributing its part to the single spinal cord. The heads were attached to the neck at right angles, which would have made delivery impossible. There were two wind-pipes, each connected with the lung on its own side; and two gullets, each terminating in a stomach of its own. The stomachs united in a common duodenum, and the intestines were single to their termination. The calf was a male, and except in the points noted resembled an ordinary animal.

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Experiment with Potatoes.

In a communication from L. SMITH, Esq., of Fallsburg, he mentions an experiment made by him in planting the Yam, Mercer, and Rohan potato. Twelve Yam potatoes were cut in pieces, one eye on each piece, and planted two pieces in a hill. Adjoining, in rows of the same length, and with pieces cut in the same way were two rows of Mercers; next these were two rows of Rohans, cut and planted as the first; and then again two rows of Rohans, with only one piece in a hill. At digging, the Yams gave five bushels of assorted potatoes, and a peck of small ones; the Mercers five bushels and a half of assorted, and a half peck of small ones; the Rohans gave five bushels to the first two rows, and I could perceive no difference between them and the two last, either in tops or bottoms. The Rohans were large, and required no assorting.

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Inquiry.

MESSRS. EDITORS—My farm is better adapted to raising stock or keeping dairy than for grain, but I do not wish to keep a dairy. Which would afford the most profit, and be the best to improve the land, raising neat stock, or keeping sheep? If sheep, what breed would be the best for that purpose? If neat stock, what breed? and which would be the most profitable, heifers or steers? An answer from one qualified by experience to express an opinion would be thankfully received.

FALLSBURG.

—

Inquiries—Sweet Potatoes and Hessian Fly.

A. AYLSWORTH, of Granville, O., requests some information on the subject of raising and preserving the sweet potato; and the prevention of the Hessian fly.

A writer in a southwestern journal gives the following directions, which he has successfully practiced for twenty years: "Manure and break up your ground, and make it fine by plowing and harrowing. Then throw three furrows together, and to complete the ridge with a fine rake, draw the dirt up on each side to about the height of a potato ridge. Open a trench on the ridge and drop the slips five or six inches apart, and cover two inches deep. There is no difficulty in the after culture; and a plow will materially assist in digging the crop. The potatoes are put in a tight bin or garner in the cellar with chaff or dry dirt around and on them, and put them in the same day they are dug. When freezing weather comes on, close the cellar windows. Plant as early as the spring frosts will admit, and dig after the first frost is hard enough to bite the leaves." To preserve the sweet potato, exclusion from the air and light, a dry place and dry covering, and a moderate or rather low temperature is necessary. With these requisites there is little difficulty in their preservation.

As to the Hessian fly we regret to say, that important as the subject is to the farmer, and extensive as are its annual ravages, no method has yet been discovered of arresting its depredations on the wheat crop. Every thing is as yet but mere theory, which it is nearly useless to detail. What is known on the subject may be found in former volumes of the Cultivator. Mr. AYLSWORTH gives the results of three experiments on spring wheat, the results of which condensed, are as follows:

1st. Sowed 9th of March, 1840. Injured by the fly about the lower joint; product a middling crop.

2d. Sowed April 15th, 1840. Looked well until about to head, when about one-tenth of it headed, and ran up the usual height. The remainder formed no heads. On examination it was found the fly had not lodged its eggs in the usual place near the root, but invariably *above* the upper joint. That which bore a head had but few of the larvæ.

3d. Sowed May 16th, 1840. Looked finely for three or four weeks after it was sown; when it began to perish, and soon all disappeared; the fly causing a total failure.

—

Large Calf.

"*O. K.*" of Homer, had a cow calve on the 22d of June last. The calf was weak, and was obliged to be assisted for a fortnight before it could help itself. Its weight the day after it was dropped, was 115 pounds, at five months it weighed 550 pounds, and its girth was five feet.

—

Inquiry.

MESSRS. EDITORS—How long should a man be engaged in agriculture before he has a right to the appellation of a practical farmer? O. K.

According to the common use of language as applied to men engaged in the professions, or in the mechanic arts, when an individual begins to put in practice the knowledge which he has previously acquired on any given subject, he is said to become a practical man, and we know no reason why the same rule should not apply to the farmer. The value of the opinions, however, expressed by these men, or by others, must depend much on their habits, and their means of observation. *Long experience*, combined with *correct observation*, certainly entitles opinions to great weight; but there are men who have farmed it all their days, that act as mechanically as the implements they use, and the latter are almost as much entitled to the appellation of practical farmers as the former.

—

Rohan Potatoes and South Downs.

Mr. TAYLOR of Delphi, Onondaga, informs us of the result of an experiment made by him last year in cultivating potatoes. He planted the Rohans, (cut in pieces, with two eyes in a piece, and two pieces in a hill,) the Sardinias, English Whites, and Orange potatoes two rows of each; rows, 60 or 70 hills in length, and gave them the same treatment throughout. At digging, the Rohans were found clustered together in the hills, much lessening the labor of digging; but they did not yield as much to the row into nearly a bushel, as the other kinds planted. Mr. Taylor has commenced the breeding of South Downs from stock purchased from the flocks of Messrs. ROTCH and BEMENT. The South Downs are great favorites of ours as a sheep for the common farmer, and we presume Mr. Taylor will not be disappointed in their value. We concur fully in the desire expressed by Mr. Taylor, that where no good reason exists for withholding a name, it should always accompany a communication. We have no doubt such a course would be generally acceptable to the numerous readers of the Cultivator.

—

Gapes in Chickens.

Our correspondent, Gen. C. of Iowa, attributes the gapes in chickens to breeding from too old cocks, and says—"Whether the age of the male would cause that disease or not, I know not; but I can well remember the time when cocks were allowed to grow old for the purpose of cock-fighting, that three-fourths of the chickens died with the gapes; and I have since noticed that where none but young cocks are kept on a farm, the disease is almost unknown. I do not remember having seen a dozen chickens affected with it in the last thirty years."

—

Farm Crops.

Mr. J. F. OSBORN of Port Byron, Cayuga Co., well known as a successful agriculturist, writes us as follows: "My crops for 1840, were not quite as good as usual; still my corn averaged 80 bushels per acre; my oats over 60, wheat 20, and potatoes 300 bushels to the acre. On one and one-eighth of an acre of sugar beets, I had 800 bushels; but on three-fourths of an acre of ruta baga, I had but 200 bushels, while three years since, on the same ground, I had over 1,000 bushels. The black bug attacked the young plant; the white worm or maggot showed itself in the root; and a little red blue bug, which eat out the small or center leaves of the plants about finished them."

—

Great Yield of Carrots.

Mr. EDGERTON of Mount Moriah, N. Y. says—"In 1839, I planted eight rods of ground with carrots, in drills twenty inches apart; (they should be two feet when the ground is suitably prepared;) the produce was 88 bushels, or at the rate of 1,900 *bushels* to the acre. I measured one that was 18 inches in diameter, and the same in length. I also raised a considerable quantity of Swedish turneps and Mangel Wurtzel. From the latter I could have selected 100 roots that would have weighed half a ton. I am convinced there is no crop that better repays a little extra labor than carrots, or that is more deserving of general cultivation by farmers."

—

China Tree Corn.

Mr. FOWLER of Vermillion, Ohio, gives the following as the result of some experiments made by him last year in raising corn:—"About the 20th of May I fitted one and a half acres of ground (without manure) and planted half an acre with the improved White corn; half an acre with the China; and half an acre with the common gourd seed; in rows 4 feet apart, drilling the corn so that the stalks were from 8 to 10 inches distant in the rows. I hoed the corn twice, and kept it free from suckers. About the first of October I gathered it, and after husking made trial by shelling and weighing; the result of which was that the China yielded 73½ bushels of 56½ lbs., or at the rate of 147 bushels per acre; the White, 54, or at the rate of 108 bushels per acre; and the gourd seed 56, or at the rate of 112 bushels per acre." Mr. Fowler speaks highly of the China corn, and thinks it will be one of the best kinds for cultivation in a suitable climate. The correctness of Mr. Fowler's estimate is certified by C. RUGGLES, Esq. who witnessed the measure.

W. BACHE, Esq. of Wellsboro, Pa., writes us that his experiment with the Chinese corn was very successful, and that he has little doubt the acquisition to the country will be an important one.

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Portrait of Judge Buel.

For the purpose of preserving the fine portrait of Judge Buel furnished the subscribers to the Cultivator with the 6th volume, a correspondent suggests that the engraving be neatly pasted on blank paper of suitable size and bound with the Cultivator as a frontispiece to the volume. He says—"Personally permit me to say, I can never forget the dignified form, the patriarchal mien, the sauvity of manner, and benevolent expression of countenance, evinced in our limited personal acquaint-

tance with him, and wishing to retain these impressions and his likeness, and presuming many others wish to do the same, I have no doubt they will appreciate the suggestion of Truly yours, W."

Olds' Corn Planter.

Mr. CALVIN OLDS, of Marlborough, Vermont, has sent to us a notice of a new "Corn Planter and Seed Sower," which is highly spoken of as acting on simple and effective principles, "dipping up the seed and dropping it at given points with great exactness. The quantity is regulated at pleasure" We are always pleased to notice improved implements of this or other kinds. It will be found for sale at Thorburn's Seed Store. Mr. Olds' "Planter" received the premium of $20 from the Franklin Institute, Philadelphia.

"The Earl's Letter."

DOUBTS have been expressed by several of our correspondents, as to the genuineness of the letter from the Earl of Warwick, published in our last number, page 49, and three or four have criticised it with great severity. The letter was evidently an off-hand reply to the inquiries of the gentleman to whom it was addressed, and as such should not be subjected to the criticism it might have deserved, had it been deliberately written for publication; indeed we think it creditable to the Earl as a business man, if not as a polished writer. In accordance with the suggestion contained in a private letter from an esteemed friend, who thinks that either ourselves or Mr. Sotham have been hoaxed, we have carefully examined the original, from which it was put in type, and we have not a shadow of doubt as to its genuineness. It has the regular English postmark, as well as that of Boston, and the seal used, as we are assured by a gentleman who examined it before it was broken, was that of the Warwick family.

Slaughter House Manure, &c.

We take this method of replying to our correspondent, "Q. C. R." of Shoreham, Vt. Slaughter house manure, composed as it is of blood, flesh and offals, is, when decomposed, one of the most valuable of manures, and according to Chaptal, Liebig, and the British Husbandry, should always be made into compost before using. It should be placed in layers with swamp muck, turf, yard manure, or other matters, that the gases of ammonia, &c., which escape in the process of fermentation, may be absorbed and retained. If the soil is very dry or sandy, the earths mixed with the compost should be argillaceous, and if clayey or heavy, the reverse.

Bones are a capital manure, but it is necessary they should be broken or crushed before using, and the finer this is done, the more immediate will be the effect. An active man, with a suitable sledge or hammer, will break bones rapidly, and, though crushing would be far preferable, they would be better in this way than not broken at all.

The Dutton corn is certainly an excellent kind of corn, but it will not ripen as early as some others, and the cob is comparatively large, which renders thorough curing or drying more necessary. Last season, Dutton corn succeeded admirably, some of the finest fields we ever saw, being of that variety. The seed might be obtained in Albany.

The Berkshires are not a large hog, but the multitude of instances reported in the journals of the past season in which they have reached from 4 to 600 lbs. weight, would seem to be conclusive that if not a large framed hog, they may be easily made of great weight. If, however, any one finds the full blood Berkshires not large enough to suit his notions, (we believe few who try them will entertain such an opinion) he can cross them with some larger breed and thus produce swine of any desirable size.

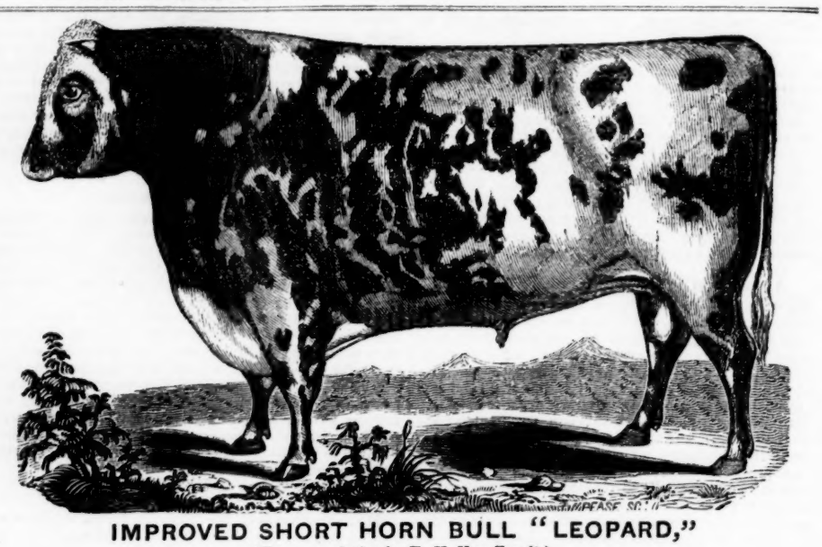
We would further suggest to our correspondent, that his soil, from his description of it, is one that would be essentially benefitted by plaster, and that by using it liberally with clover, and a rotation of crops, he cannot fail of rendering his farm fertile and productive.

Rearing Calves on Flax Seed and Hay Tea.

Our correspondent "*East Windsor*," in commenting on the paper of E. S. Willett, on rearing calves, in the Dec. number of the Cultivator, demurs to the practice there recommended, for the following reasons:—

1st, it is contrary to the course of nature; 2d, it will not produce as good calves; 3d, it will be more expensive; and 4th, it will not be as good for the cow. He prefers rearing calves on skimmed milk, with a handful of some kind of light meal added daily, with sweet hay or grass. He says—"We do not claim but that calves can be kept *alive* without any milk, but what is the profit? What can be done with the skimmed milk, better than to give it to the calves? It is certainly desirable with us, to have our calves attain some size the first year; the bringing up of calves in *starvation* one year, to see them grow faster the next, is like rolling a stone up a very steep hill, to see it roll down again very swift. The best stocks of cattle with us (and we have some that cannot be beat in New-England, or the State of New-York) are those that are the thriftiest the first year."

NEW COTTON.—A new variety of cotton has been introduced into Alabama from Rio, in South America, and is called the Rio Cotton. It is said to be superior to the best Sea Island. The staple is about three inches long, and of glossy, silk texture.



IMPROVED SHORT HORN BULL "LEOPARD,"

(From a painting by T. K. Van Zandt,)

Owned by E. P. Prentice, Esq. Mount Hope, near this city.

New-York State Agricultural Society.

The Executive Committee of this Society held their regular monthly meeting, at room No. 7, Exchange, Albany, on the Third Wednesday of March, 1841—present, Messrs. NOTT, BEMENT, VAIL, PRENTICE, MCINTYRE, and TUCKER. The President having taken the Chair, the Board proceeded to the appointment of the general committee for the counties, and completed the list as follows:

ALBANY COUNTY.
F. C. Hillhouse, Watervliet.
Wm. N. Sill, Cedarville.
John J. Bullock,

ALLEGANY.
Alvin Burr, Angelica.
James McCall, P. M., Rushford.

BROOME.
T. Robinson, P. M. Binghamton.

CAYUGA.
David Thomas, Aurora.
John B. Dill, Auburn.
J. F. Osborn, Port Byron.

CLINTON.
H. K. Averill, Plattsburgh

CHEMUNG.
Eli C. Frost, Catherine.

CHENANGO.
William S. Randall, Norwich.
H. Balcom, Oxford.
Wm. Newton, Sherburne

CHAUTAUQUE
Jabez Burrows, Mayville.
Mr. Crooker, Fredonia,
Orton Clark, Sassadaga.

CATTARAUGUS.
Anson Gibbs, Ellicottville.
David McClure, Franklinville.

CORTLAND.
John Miller, Truxton.
Dan Hibbard, Cortland Village.

COLUMBIA.
John P. Beekman, Kinderhook.
Oliver Wiswall, Hudson.
E. Tilden, P. M. New Lebanon.

DELAWARE.
Jabez Bostwick, Hamden.
Wm. Frisbee, Delhi.

DUTCHESS.
Theodore Allen, Hydepark.
D. H. Holden, Poughkeepsie.
Anson Sherwood, Fishkill.
Eli Westfall, Rhinebeck.
ESSEX.—W. G. Ross, Essex.

ERIE.
Harlow Case, Buffalo.
R. L. Allen, do.
A. D. Tenny, Alden.

FULTON.
Thaddeus St. John.

FRANKLIN.
James Duane, Duane.

GENESEE.
Lewis E. Heston, Batavia.
Martin O. Coe, Le Roy.
Ezra Bishop, Attica.
P. M. Ward, Perry.

GREENE.
A. Van Bergen, Coxsackie.
William Salisbury, Leeds.

HERKIMER.
Henry Burrall, Salisbury.
Samuel Colman, Warren.

JEFFERSON.
O. Hungerford, Watertown.
Eldridge G. Merrick, Clayton.
Chas. E. Clarke, Great Bend.

KINGS.
Cornelius Bergen, Brooklyn.
Garret Kouenhoven, Flatlands.

LIVINGSTON.
Micah Brooks, Brooksgrove.
Alex. Simpson, Caledonia.

LEWIS.
J. Bostwick, Lowville.

MONROE.
R. Harmon, jr. Wheatland.
Alfred Jones, Rush.
Abel Baldwin, Clarkson.

MONTGOMERY.
John Frey, Palatine Bridge.
Isaac H. Tiffany, Fultonville.

MADISON.
Jonathan Ledyard, Cazenovia.
I. S. Spencer, P. M. Canastota.
S. B. Eurchard, Hamilton.

NEW-YORK.
Abraham Bell, W. A. Seely, Norman Hecok, A. Dey, Wm. Emerson, Wilmot Williams, D. K. Minor, E. Bement, I. Adriance, S. Fleet, J. L. Mott, New-York.
W. H. Hall and Gouveneur Morris, Harlem.

NIAGARA.
William Parsons, Lockport.
James Baldwin, Royalton.

ONONDAGA.
William Fuller, Skaneateles.
George Geddes, Geddes.
Enoch Marks, Navarino.
Peter Reed, Manlius.

OTSEGO.
Francis Rotch, Butternuts.
H. Gregory, Gilbertsville.
Robert Benedict, Richfield.

ORANGE.
James H. Crawford, Crawford.
N. P. Hill, Montgomery.
J. D. Bull, Hamptonburgh.

ONEIDA.
T. Goodsell, Utica.
Ira S. Hitchcock,
Elon Comstock, Stokes.

OSWEGO.
Orlo Steele, Oswego.
Alvin Rice, Hannibal.

ORLEANS.
A. Whitney, Kendall.

ONTARIO.
Oliver Phelps, Canandaigua.
Myron Adams, Bloomfield.
Robert Nicholas, Geneva.

PUTNAM.
James H. Cornwall, Towners.

QUEENS.
John Treadwell, Jamaica.

RENSSELAER.
J. J. Viele, Buskirk's Bridge.
George M. Tibbetts, Troy.
John Sampson, Troy.

ROCKLAND.
J. Wood, P. M. Clarkstown.

RICHMOND.
Samuel Ackerly, Southold.

SCHOHARIE.
J. Westover, Richmondville.
John S. Brown, Esperance.

SULLIVAN.
W. F. Brodhead, Forestburgh.

STEUBEN.
Z. A. Leland, Bath.
Israel Skinner, Prattsburgh.
Wm. J. Gilbert, Painted Post.

ST. LAWRENCE.
H. Van Rensselaer, Ogdens-
Zenas Clark, Potsdam. [burgh.]

SUFFOLK.
J. F. Dayton, East Hampton.
Asher P. Hamblin, Babylon.

SENECA.
G. V. Sackett, Seneca Falls.

SARATOGA.
James Thompson, Ballston.
J. H. Beach, Saratoga Springs.

SCHENECTADY.
O. D. Campbell, Schenectady.

TOMPKINS.
Ezra Cornell, Ithaca.
Wm. T. Lawrence, Newfield.

TIOGA.
C. F. Johnson, Owego.

ULSTER.
Philip Hornbeck, Accord.
M. G. Decker, Bruynswick.

WAYNE.
C. S. Button, Newark.
R. H. Foster, P. M. Lyons.

WARREN.
William McDonald,

WESTCHESTER.
S. F. Halsey, West Farms
L. D. Clift, Somers.

WASHINGTON.
Henry Holmes, Greenwich.
Dr. Newcomb, Whitehall.

YATES.
Jared Patchen, Benton Center.

The Recording Secretary reported a complete list of the members of the Society, specifying those who have paid their annual dues for the current year, and the sums due from those in arrears—when it was

1. *Resolved*, That the names of the members of this Society, who have paid their dues, be published in the Cultivator—that notice be given to those in arrears; and that a monthly list of all new members, as well as those who pay their dues, be published hereafter.

Members of the N. Y. State Agricultural Society.

EDWARD P. LIVINGSTON, Claremont, Life Member.

Bement, Caleb N., Albany.	Middleton, Robert, Albany.
Briggs, Amos, Rensselaer Co.	Miller, Erastus, Albany.
Buel, Jesse, Albany.	Morrell, L. A., Lake Ridge.
Buffett, Lewis, Schaghticoke.	Munroe, David, Camillus.
Burchard, S. B., Madison Co.	Nott, Joel B., Guilderland.
Comstock, Elon, Stokes.	Parke, S. M., Albany.
Cornell, Ezra, Ithaca.	Prentice, Ezra P., Albany.
Ferguson, John, Schenectady.	Prentice, Sartwell, "
Fowler, S. S., Greenbush.	Robinson, D. A., Farmington.
Fuller, William, Skaneateles.	Roth, F. Butternutts
Gaylord, Willis, Otisco.	Scott, David, Attica.
Grove, H. D., Buskirk's Bridge.	Shaw, A. H., Lansing.
Hoag, S. W., Rensselaer Co.	Sherwood, J. M., Auburn.
Linn, A. L., Schenectady.	Tucker, Luther, Albany.
Marks, A., Durham.	Vail, George, Troy.
Maynard, John, Seneca Falls.	Van Bergen, A., Coxsackie.
Masters, N. W. Schaghticoke.	Walsh, Alex., Lansingburg.
McIntyre, Alexander, Albany.	Wendell, Herman, Albany
McIntyre, J. McD., "	

A FINANCE COMMITTEE was appointed, consisting of Messrs. NOTT, VAIL, PRENTICE, WALSH and MCINTYRE.

The subject of By-Laws was referred back to the committee, to report at next meeting.

The Corresponding Secretary reported a Circular Letter to the General Committee, which was read and approved, and directed to be printed, together with the Constitution, and sent to each member of the Committee.

Interesting Reports were received from Messrs. MORRELL and RANDALL, on the Premium List, which were referred to the next meeting, in the expectation that the other members of the committee will report at that time.

2. *Resolved*, That as the Executive Committee are to decide at their next meeting, (to be held on the THIRD WEDNESDAY of April,) as to the time and place of holding their Exhibition and Fair, each member of the Committee, who cannot attend the meeting, be requested to communicate his views on these points in writing.

3. *Resolved*, That we pledge ourselves to use our personal exertions to increase the number of members of our Society, and that we will, each one of us, present the names of some new members at each monthly meeting of the Executive Committee; and that this resolution be forwarded to such members of the Committee as were not present, and their concurrence solicited.

Adjourned to the 3d Wednesday of April at 3 o'clock,

LOSS OF WEIGHT IN DRYING GRASSES.—In the 8th volume of the Massachusetts Agricultural Journal, is a table furnished by the Hon JOHN WELLES, of the loss the different grasses sustain in drying. There are some discrepancies in the results of different years, the result probably of greater ripeness in one case than the other:

100 lbs. of green white clover gave when dried,	.....	27 lbs
" " red clover,	"	.....	26 "
" " herds' grass,	"	.....	39 "
" " fresh meadow,	"	.....	44 "
" " salt grass,	"	.....	60 "
" " English rowen or 2d crop,	.....	19 "
" " corn stalks gave when dried	.....	25 "
" " spiked oat grass,	"	.....	50 "
" " red top,	"	.....	46 "
" " Rhode Island,	"	.....	40 "
" " couch grass,	"	.....	48 "
" " marine black grass,	"	.....	38 "

MONTHLY NOTICES.

"The Northern Light."—The first number of a monthly journal, with this title, has just been issued by an association of gentlemen in this city, under the editorial supervision of John A. Dix, Esq., a gentleman whose reputation as a writer, as well as the paper before us, affords a sufficient guarantee of the ability with which it will be conducted. It is devoted to the discussion of the principles of political economy, agriculture, literature and a record of passing events, and to be issued on the first of each month, in the same style and form as the Cultivator—price $1.00 a year.

Exportation of Bones.—We learn that Mr. S. Titcomb, of Waterford, Saratoga county, in 1839, sold to an English gentleman for exportation twenty tons of bones at eight dollars per ton; and that the same person has lately written to Mr. T. asking whether he could obtain a farther supply, and offering at the rate of ten dollars per ton. That a profit is realized by the exportation, we have no doubt; but we would ask whether it would not be better to grind and use these bones at home, than to send this invaluable article abroad, and import wheat and potatoes in return.

Breeding Cattle.—In the interesting reports of the agricultural meetings at Boston, furnished for the Boston Courier by Mr. Colman, is a notice of the "Crampot breed of Cattle," produced by Col. Jacques of Charlestown, and an account of their qualities, &c. by that gentleman. In the course of his remarks, he said, "He had now twenty-eight cows and heifers of this stock; and at his pleasure he could breed his stock with orange color or yellow around the eye; of a mahogany color, white bags and black tents, as might be desired." * * * * "With a view to test his principles (of breeding) he had gone largely into the breeding of rabbits; and it had required the ninth generation, and four hundred rabbits to reach the point he aimed at."

Tobacco in Canada.—The Buffalo Advertiser says that tobacco is almost the only crop made by the cultivators of the soil for the distance of seventy-five miles east from Malden, along the northern shore of Lake Erie. We saw many drying houses or barns a hundred feet in length, and nearly filled with the poisonous weed hung up to dry or cure. The runaway slaves and free blacks from Virginia and elsewhere have carried with them a practical knowledge of cultivating tobacco to their new residence, which in despite of its unpropitious latitude, they are able to turn to good account.

White Carrot.—From some experiments that have been made with this root, it appears that it will produce nearly or quite double as much on the same soils and with the same treatment as the common orange. Whether it will be as valuable for feeding remains to be seen. Should it prove so, the Flemish carrot will be a great acquisition.

Going Backward.—A Mr. Carmichael in the American Farmer, places the *Timicum* cattle, a breed he imagines can be traced to the island of Timian in the Pacific Ocean, at the head of our cattle, and while admitting the advantage of crosses, sagaciously observes, "I should prefer a bull from New-England to one from Old England." There are many beautiful cattle in New-England, but the best found there are the result of recent crosses with imported English bulls.

Bone Manure.—In the Farmer's Register is a record of a series of experiments made by T. A. C. Jones to test the value of bone manure in comparison with stable manures, and he arrives at the following conclusions: "1. That when applied at the rate of from fifty to eighty bushels per acre on the exhausted lands of Virginia, one bushel of crushed bones is more than equal to one cart load of (twenty-five bushels) good farm yard manure, in its effect on the crop. 2. That the effect of bone manure is more durable than that of any putrescent manure usually procured on a farm. 3. That when applied to land which is in good heart, the effect is much more powerful than it is on very poor land. 4. That when combined with manure and applied in the form of compost [eight per cent of bone dust with the scrapings of the farm yards] the effect both instant and remote, far exceeds that of any other application with which I am acquainted; and lastly, if stable manure has to be purchased, or even hauled more than half a mile from your own stables, bone manure at fifty cents per bushel, the price it cost me, delivered on my farm, is the cheapest manure of the two."

Poudrette.—Mr. Minor, of New-York, at one of the legislative agricultural meetings in Boston, made some interesting statements respecting the value of this manure on crops. On *winter* sown wheat it added much to the crop, and its value is truly great on corn and root crops generally. The method of applying it to corn, is to give each hill a *gill and a half*, half at planting, and half as a dressing to be worked in with the hoe or cultivator. The price of *poudrette* at the manufactory in New-York is $1.75 per barrel of four bushels; or three barrels for five dollars. Of the fertilizing powers of poudrette there can be no question, but experiments would seem to show that it is better adapted for corn or roots that require to be brought forward rapidly, than for the spring grains, particularly wheat, as by giving a rank and rapid growth of straw the tendency to rust or mildew is increased.

Grasshoppers in January.—The N. H. Herald mentions that a gentleman of Woodbridge had brought to that office a number of real grasshoppers, gathered in the open air, when the thermometer was at zero. There had been a thaw immediately previous to their being found. We have seen full grown grasshoppers of the previous year, in March; and a friend of ours assured us several years since that he had caught trout in the Otsco lake on hooks, baited with grasshoppers caught in the open fields in February, and dropped into the water through holes cut in the ice. The grasshopper would seem therefore to be more tenacious of life than has generally been supposed.

"Tree Fence."—Mr. Asa Chatfield in the Herkimer Journal gives the following account of an experiment in fencing made by him. In reference to an article in the Cultivator on fencing, he says: "I will describe a kind of fence I have on my farm. It consists of trees commonly called the English poplar, set out some twenty-five years ago, in a straight line, fourteen feet apart, close to the rail fence which then bordered the road passing by my house for the distance of eighty or ninety rods. When I put them there, I designed them for nothing more than ornament, my farm for the most part being very well supplied with stone for walls. The trees grew very rapidly, and after a few years the idea struck me, that I would procure black ash rails, as being as durable as any I could get on the farm, (cedar would be preferable where it could be got,) and bore and mortise the trees the same as posts, and fit the rails in them. I did so—it took but five rails to a length, and the very next year the rails were grown in perfectly solid, and have remained so ever since. There is no falling off of the rails, neither can any wind blow the fence down, nor can any animal of any description push or shove it down. * * * The poplar tree, if used for the fence, should have its top taken off once in eight or nine years, and that will prevent too much shade, where the fence runs across the farm."

Great Porkers.—Whatever may be thought of the year 1840 in other respects, it will long remain famous for the heavy hogs it has produced. Mr. Willard of the Shaker Society at Canterbury, in a note to Gov. Hill says, "We give you the weight of three of the *full blood* Berkshires which we slaughtered a few days since. Two weighed, when dressed, each 476 pounds, and one 550 pounds, all of which had no extraordinary keeping, and we are induced to believe that by proper management and more feeding they could have been made considerably larger."

Another Pig.—Mr. J. Osborne, of Kennebec, Me., slaughtered a pig the last of December, not quite eight months old, which weighed, including the rough fat, 401 pounds. Such a pig is we think hard to beat.

Still another Lot.—Our Kentucky friends must look to their laurels, or the old Bay State will wear them yet. Mr. Phinney has furnished the New-England Farmer with the weights of fifteen Berkshire and Mackay hogs killed by him 2d February. "738, 655, 579, 574, 556, 528, 523, 517, 503, 501, 487, 480, 476, 441, 400, pounds; aggregate weight 7,958 pounds; average weight 530½ pounds."

Preparation of Cions.—From some experiments made last spring by Mr. Newton, of Worcester, it appears that the chance of the cions inserted in grafting living is much increased by dipping the upper end of the cion in wax, or covering it with a film so as to prevent evaporation. We have tried the same method with cions, and with cuttings, and think it worthy of adoption.

Wheat in Connecticut.—The quantity of wheat grown in Connecticut as shown by the agricultural census is as follows: Hartford county, 13,449; New-Haven, 7,032; New London, 10,138; Fairfield, 10,802; Windham, 8,899; Litchfield, 23,544; Middlesex, 5,463; Tolland, 7,553. Total, 86,880 bushels. This is pretty well, but Connecticut can and will do better hereafter.

Cooking Hams.—A correspondent of the N. H. Farmer's Gazette says: "If you have not cut your hams, I will tell you of a good way to cook them. Boil the ham three hours, then skin it nicely, pound crackers fine and sprinkle on it, then bake one hour. Cooked in this way they are very nice."

Capabilities of the Soil.—Under this title Mr. Townsend, near New-Haven, has given the Farmer's Gazette a statement of the crops raised by him on a small piece of ground in four years. The land measured just five-eighths of an acre. First year fifteen ox cart loads of forty-two bushels each of pumpkins, or 630 bushels. Second year potatoes, which sold for $70. Third year thirty-one shocks of rye, large sheaves. Fourth year (1840) cut three tons of hay of good quality. The expense of culture, manure, &c. of all the crops was $46.

To make Leather Water Proof.—We find in the Maine Cultivator the following directions for making boots or shoes water proof: "Take three ounces spermaceti and melt it in a pipkin or other earthen vessel over a slow fire; add thereto six drams of India rubber, cut into slices, and these will speedily dissolve. Then add of tallow eight ounces; hog's lard two ounces; amber varnish four ounces; mix, and it is fit for use. Two or three coats with a common blacking brush are to be laid on, and a fine polish will be the result.

Agri. Statistics of Michigan.—Horses and mules,.. 28,784
Neat cattle, ... 179,198
Sheep, ... 95,584
Swine, ... 304,358
Bushels of wheat, ... 2,147,586
" barley, ... 119,491
" oats, ... 2,053,074
" rye, ... 33,129
" buckwheat, ... 106,797
" corn, ... 2,238,796
" potatoes, ... 2,040,941
Pounds of wool, ... 144,793

Corn for Fodder.—Mr. Letton, of Davidson, Ky., last year sowed three acres of corn for fodder, and cut from this land twenty hay-loads of fodder, estimated to weigh one ton each, or more than six tons of first rate fodder per acre. Some experiments have been made in the New-England states with corn sown for this purpose, and with favorable results. We think there are many farmers who might greatly increase their means of feeding their cattle or horses by sowing corn in this way.

Pickled Beef and Pork.—It is well known that these articles are with difficulty preserved sweet in the south. To prevent their souring, take them out of the brine and smoke them until dry—throw away the old pickle, or cleanse it by boiling and skimming. Smoke the barrel thoroughly and repack the meat.

Great Egg.—Mr. Buckminster says: "A gentleman from Medford showed us last week the largest hen's egg we ever turned eyes on; its girth was seven and three-quarters of an inch, by six and a half—the fowl was quite young, and had laid several eggs nearly as large as this—she laid three, in four days last week."

Another.—We have just measured an egg, taken from a basket received from our friend of the "Three Hills Farm," and find its girth to be 5⅞ths by 7⅛ths inches.

African Sheep.—The Boston Society of Natural History have received from D. S. M'Cauly, United States Consul at Tripoli, two varieties of the sheep in the north of Africa. Three of these animals are of the Bengazi or four horned breed, and are distinguished by the size of their tails, which sometimes weigh fifteen pounds, and are highly prized by epicures. The fourth is a ram of the Fezzon breed, much resembling the goat in its appearance, limbs and hair, and inhabits the high ranges of the Atlas. They cannot probably be considered as of great value, other than as curious specimens of this animal, not hitherto known in the United States.

"A Lady Agriculturist."—We learn from the Maine Cultivator, that at the last meeting of the Kennebec Agricultural Society, Mrs. Content W. Hains claimed and received the premiums for the best crops of Indian corn and wheat. The yield of corn was 132 bushels of ears to the acre, and of wheat 29 bushels. There were a number of competitors, but they were fairly distanced by the lady

County Agricultural Societies.

Onondaga.—The following list of officers of this Society, chosen at its last annual meeting, has been furnished us by the President:

JOHN SANFORD, President, Marcellus.
Silas Gaylord, 1st Vice President, Skaneateles.
James L. Voorhis, 2d " Lysander.
George Geddes, Recording Secretary, Camillus.
John C. Brown, Corressponding Secretary, Onondaga.
Mr. Wallace, Treasurer, Syracuse.

Executive Committee—One for each Town.

Salina, Joseph Savage.	Tully, Nichol Howel.
Camillus, Talmadge Cherry.	Fabius, Aden Howe.
Onondaga, E. Marks.	Pompey, David Marsh.
Dewitt, N. P. Bogardus.	LaFayette, John Spencer.
Elbridge, John Ranny.	Manlius, F. R. Read.
Skaneateles, Chester Moses.	Van Buren, John Bowman.
Marcellus, Myron L. Mills.	Lysander, John Stevens.
Spafford, John Baxter.	Clay, S. L. Wormwood.
Otisco, Warner Abbot.	Cicero, John Bowring.

Monroe.—At the annual meeting of the "Genesee Agricultural Society," held Feb. 2, 1841, the title of the Society was changed to "Monroe Agricultural Society;" and the following officers elected:

LYMAN B. LANGWORTHY, President, Greece.
William Garbutt, 1st Vice President, Wheatland.
Henry E. Rochester, 2d do. do. Gates.
William C. Cornell, 3d do. do. Henrietta.
Henry M. Ward, Recording Secretary, Rochester.
Michael B. Bateman, Corresponding Secretary, Rochester.
Charles F. Crossman, Treasurer, Rochester.

Board of Managers.

R. Harmon, Jr. Wheatland.	John B. Smith, Ogden.
Oliver Culver, Brighton.	John H. Robinson, Henrietta.
Thomas Weddle, Greece.	George C. Latta, Greece.
Isaac Moore, Brighton.	J. P. Stull, Rush.
H. E. Barnard, Mendon	George Sheffer, Wheatland
William Pixley, Chili.	Doctor A. Baldwin, Clarkson.
Enoch Strong, Perinton.	

Cortland.—The annual meeting of this Society was held Feb. 13, 1841. Reports were presented, on the general state of Agriculture in the County, by H. S. Randall—on Cattle, by R. Boies—on Horses, by T. Harrop—on Swine, and on Fence Building, by J. Onderdonk—on the Dairy, by A. Rice—on Fattening Beef, by I. Boies—on the Comparative Value of Potatoes and Ruta Bagas, by J. Ives—on the Application of Manures, by P. Barber—on the Theory and Practice of Draining, by H. Stephens. These Reports are to be published. The following officers were elected for the present year:

JESSE IVES, President.
H. S. Randall and David Matthews, Vice Presidents.
R. Boies, Trersurer—Amos Rice, Secretary.

Executive Committee.

Dan Hibbard.	Paris Barber.
Morris Miller.	Israel Boies.
Manly Hobart.	A. Chamberlain.

Crops, and their Value from Five Acres.

In conversation the other day with a gentleman of our acquaintance, well known as a most successful farmer, he remarked that the productiveness of good soils was not generally understood, and that their capability was one of the strongest arguments in favor of small farms. As a proof, he instanced the crops he had grown on a small piece of land in four years, without extra tillage or manuring. The course of cropping pursued, he said, was not one to be commended, as it partook too much of the exhausting kind; but circumstances seemed to render it proper at the time; and it was not until very lately on looking over his books to ascertain products and prices, that the profits of this piece of ground had presented itself as worthy of notice. We made a minute of the crops grown, and their prices, from his memorandum, and we here give it to the reader, merely remarking that a crop of clover and roots should have intervened between such a course of white crops. The field contained 6¼ acres, but with the exception of the last crop of wheat, only five acres of it were in tillage. It had been a meadow, well manured, and the soil naturally fertile. The first year, the land was carefully broken up, and sowed with spring crops; these were taken off and winter wheat put in; to this crop succeeded spring grains; and these by winter wheat taken off last summer, or in 1840.

1st year,	1	acre	spring wheat,	28 bushels,	sold at $2	$56 00
	1	"	barley, ...	47	" " 62½.	35 25
	3	"	oats, ...	254	" " 42½.	127 00
2d year,	5	"	winter wheat,	125	" " $2	250 00
3d "	5	"	oats, ...	100	" " 31c.	31 00
3d "	5	"	barley, ...	170	" " 44c.	74 80
4th "	6¼	"	winter wheat,	150	" " $1	150 00
Bushels of grain, ... 874					Value when sold,	$724 05

It will be seen that the two first years were years of high prices; but at the average rates of grain, farming like this must be profitable.

Farm Implements—The Harrow.

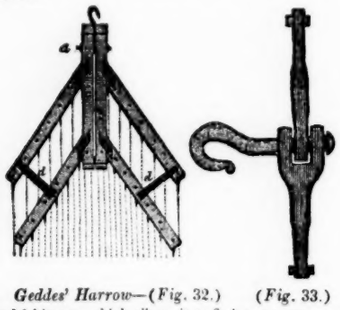
In the former numbers of the present volume of the Cultivator we have given descriptions and figures of several of the most approved plows and drills in use; and shall now notice some of the principles that govern the construction of the harrow, with figures of some of those implements that have been the most approved on trial. Every farmer is aware that a good harrow is one of the most effectual implements in fitting the soil for the reception of seed, by breaking up clods, disengaging roots and pulverizing the earth, which he can have at his command; and he must have lived and observed to little purpose, if he has not found that some forms of the harrow are much better adapted to accomplish these purposes than others.

The simplest form of the harrow, and one which we have frequently seen used in new districts, is the crotch of a tree, with holes bored in the diverging parts into which wooden pins are put for teeth, and is drawn by the projecting forward part; and the first improvement

is the substitution of iron for the wooden teeth. As agriculture advances, better implements are required, and make their appearance; and though it is in the best form somewhat imperfect, still its use is of the utmost consequence and cannot be dispensed with in tillage. The shape of the teeth used in the harrow is of great moment, as on these the principal efficacy of the implement is depending. They are usually made square, and tapered equally on all sides, and then driven into the frame without reference to their position, or line of draft. The best form of the tooth would seem to be one which would give a straight line to one angle of the tooth, and then to have it placed in the harrow in such a way that the straight edge or rather corner of the tooth shall come in front. If the angle of the tooth made in tapering it, is obtuse, or the tooth blunt, drawing the harrow forward has a constant tendency to lift it from the ground, and cause it rather to glide over the surface, than penetrate and pulverize the soil. There is no advantage gained by having the teeth made of a disproportionate length, as they penetrate no deeper unless additional weight is added to the frame of the harrow; and experience shows they are much more liable to be bent or broken than when of the proper length. Some harrows are made with the teeth longer than usual, and curved with the points forward, so as to break up and raise to the surface all such roots of grasses or weeds that might otherwise escape the harrow, or by re-vegetating produce injury to the crop. Implements of this kind are called *grubbers*, and are found of essential service to the farmer when used.

The disposition of the teeth in the frame of the harrow should be such that each one may operate distinctly from the other, or so that the number of impressions made on the soil will be equal to the number of teeth used, and at as nearly equal distances as possible, as seen in the dotted lines of some of the figures. The weight of the harrow should be adapted to the nature of the work to be performed, since it would be improper to use on light sandy or friable soils such implements as are required to break up and pulverize heavy clay ones; or substitute those of the latter class for the fine toothed lighter ones which are best for harrowing in grass seeds. Elm is one of the best woods for the frame of the harrow, as it is less liable to split than almost any other, and is also hard and durable. If farmers in general would put their large stones into walls, and the smaller ones into drains, instead of allowing them to remain for years on the surface as plow and harrow breakers, they would much improve the appearance of their fields, and lessen materially the annual cost of farm implements.

The first figure of the harrow we shall give, is the one of which a cut and description was formerly given us by GEORGE GEDDES, Esq., of Onondaga, and which as the construction is simple, and not open to the objections that can be urged against some others, is deemed worthy the notice of the farmer. In the communication which accompanied it, Mr. Geddes says:—"It is not liable to clog, from the position of the center teeth, and if it should clog, the driver has only to lift up one side while under motion, and it immediately cleans itself; while if the patent harrow clogs in the part next to the horses, (and that is the part most likely to clog) it is necessary to stop while it is cleared. It is adapted to every kind of ground. On smooth land it moves without perceptible motion at the hinges—in rough, stony, or stumpy land, by its hinges it is fitted to circumstances. It is lighter than the common harrow with the same number of teeth, the length of the whole timbers being but twenty-eight feet, and if properly made, very strong; as the shape of it is such that it cannot catch and break."



Geddes' Harrow—(*Fig.* 32.) (*Fig.* 33.)

a and *b* hinges, which allows it to fit into unevennesses of the surface passed over. The hinges being inserted from corner to corner of the timber, the harrow will be more portable, as one-half can be laid over on the other, while moving it from field to field.

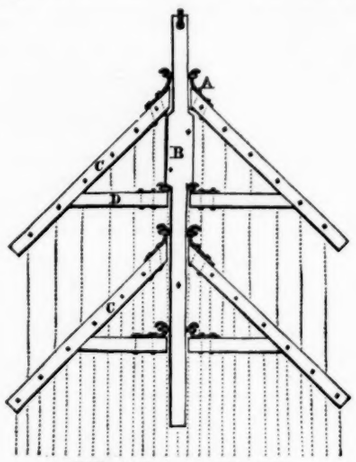
The hook by which it is drawn, is a continuation of the pivot on which the hinge turns, as shown on a larger scale, figure 33.

The teeth, *c c*, are curved, otherwise the tracks made by them will be too far apart. *d d*, two Swedes' bars, bolted on the top of the wood and fastened by screws above.

The side pieces have tenons, passing through the middle pieces, the joints being secured by iron plates above and below, riveted together. The size of the timber three by three and a half inches. The iron used for teeth, is seven-eighths of an inch square, and running within two inches of each other, the thirty teeth make a breadth of four feet ten inches, every part of which is harrowed alike fine.

Teeth passing so nigh each other as within two inches from center to center, is perhaps more than would be necessary for common use. Twenty-two teeth, so set as to run within three inches of each other, making a breadth of five feet three inches, would make a lighter harrow, and do the work as well as a square harrow with thirty teeth.

The following cut represents a harrow, invented by EDWARD WILBUR, Esq., of Pittsford, Monroe Co., and its advantages are thus described by him in a letter to the former proprietor of the Cultivator:—"The great advantage which I conceive my harrow possesses over others, even of the jointed kinds, consists in its working more perfectly the *whole* surface of the ground over which it passes. The arms swinging independently on each side of the center beam, enables one to descend into a hollow, while the other on the same side, is elevated by a sod, a stone, or any little eminence; whereas in other jointed harrows, both arms would be elevated to the height of the highest, and consequently leave some ground undisturbed. or at least but partially harrowed"



Wilbur's Harrow—(*Fig.* 34.)

A. Hooks and eyes on each arm and brace, to permit the arms to play according to the surface of the ground. The hooks fastened to the arms and braces by screw-bolts and nuts; the eyes on the ends of iron bars running through the center beam.

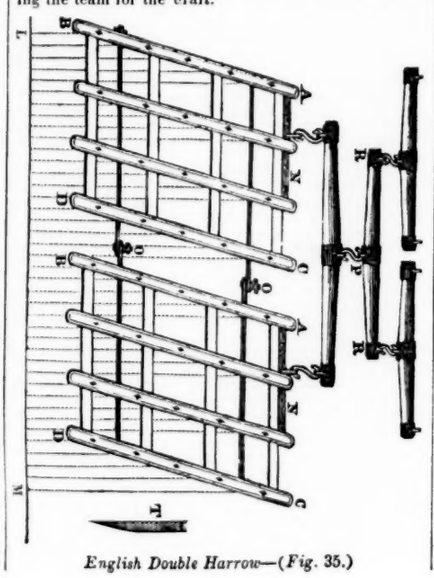
B. Center beam, with a swell eight inches wide to receive two teeth, which are four inches apart in line, and set standing so that the points may be six inches apart; they are set catering from each other, to prevent clogging; another tooth farther down works in the center of the two first.

CC. Arms, each having six teeth; teeth nine inches apart on beams, but working six inches apart in line, and so arranged that the teeth on the lower arms work in line in the middle of the track between the teeth on the fore arms.

D. Braces to the arms, into which they are fastened by tenons, and pinned.

The arms may be taken off from the center beam, by taking out the bolts from the braces and swinging them forward.

The following cut with the description, is from Prof. Low's "Elements of Practical Agriculture," and represents one of the best and most esteemed implements in use in Great Britain. It will be seen that the harrow itself does not differ materially in principle in construction from the double harrows in common use in the United States, except in the points of the shape of the teeth; the passage of the rods making the connecting joints through the whole harrow frame; the greater width of the space harrowed; and the mode of attaching the team for the draft.



English Double Harrow—(*Fig.* 35.)

"The harrows represented in fig. 35, of which the frame is of wood and the teeth of iron, are formed with a regard to these general principles. They are connected together in pairs by hinges. They consist each of four bars of wood, AB, CD, &c. which are joined together by an equal number of cross-bars of smaller dimensions, mortised through them. The larger bars may be two and a half inches in width or more, by three in depth, and the smaller two and a quarter inches in width by one in depth. The larger bars are placed oblique to the smaller bars, and to the line of the harrow's motion, and the teeth are inserted into them at equal distances from each other. This inclination is made to be such, that perpendiculars from each of the teeth falling upon a line LM, draw at right angles to the harrow's motion, shall divide the space between each bar into equal parts, so that the various teeth, when the instrument is moved forward, shall indent at equal distances the surface of the ground over which they pass.

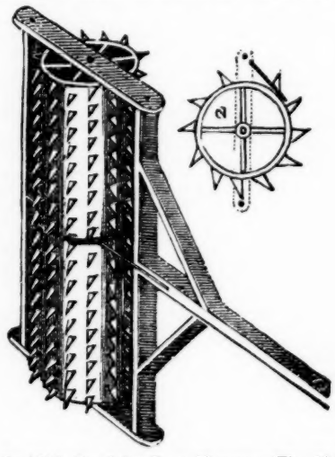
The number of teeth in each harrow is 20, five being inserted in each of the larger bars. When two harrows, therefore, are employed together, the surface of the ground from L to M is indetned by forty teeth, impressing the ground at equal distances from each other, and covering the space of about nine feet. The teeth may project below the under surface of the frame seven or eight inches, their length somewhat increasing from the hindmost to the foremost rows, where the oblique position of the line of draught tends most to elevate the harrow. The teeth are often inserted into the frame with a little inclination forward; but this deviation from the perpendicular, if made at all, should be very slight, because it renders the harrow more apt to be impeded by the weeds or other substances collected in the angle between them and the frame. The teeth are fixed in the bars by boring holes with an auger of about three-fourths of an inch in diameter, and then driving them firmly through. The teeth, when thus driven into the bars, will be retained with sufficient firmness. The best of the common kinds of wood for the larger bars, as being the least liable to split, is elm, birch or ash, and for the cross-bars ash.

The iron rods which terminate in the hinges, O, O, may pass through the framework to give it greater strength. These rods keep the harrows at the distance required, and the hinges admit of either harrow rising or falling according to the inequalities of the surface. When thus joined, the harrows are drawn by two horses guided by reins, the driver walking behind, so as to be prepared to lift up either harrow when choked by weeds, or otherwise interrupted.

The method of attaching the animals of draft will be explained by the apparatus of swing-trees, shown in the figure, by means of which each animal must exert an equal force in pulling. There are plates of iron, N, N, passing through the left-hand bars of each harrow. These plates have a few holes in them, so that the line of draft may be shifted to the right or left as may be required.

The position of P is not fixed, but must vary with the roughness of the surface over which the harrows are dragged. Hence not only must the staple P be placed somewhat to the left-hand, but there must be the power of moving it more or less towards the left-hand, according to the roughness of the surface passed over. This is effected by the iron plates, with holes, and by means of which the driver can readily shift the line of draft more or less to the left hand, as may be required."

It sometimes happens that meadows or pastures which it is inconvenient to plow for the purpose of rotation, become deficient in the more valuable grasses, or requires renewal, and for this purpose an implement called a scarifier, a kind of harrow, has been extensively used in England and the continent. This loosens the earth, and fits it for a dressing of manure, and a reseeding with better herbage. In this country an implement called "Conklin's Revolving Press Harrow," an engraving of which is given below, has been highly approved, not only on grass lands, but on tough swards or lands that require extra labor to fit them for crops.



Conklin's Revolving Press Harrow—(Fig. 36.)

Fig. 2, represents the end of one of the cylinders, showing in particular the manner in which the teeth, which are attached to the frame behind, operate in clearing the teeth of the roller.

The machine consists of two cylinders, twenty inches in diameter, and three feet long, formed of cast iron staves, which are bolted to end pieces or heads, in the center of which are boxes, similar to those of a cart-wheel, and revolves on an axle in the same manner. The teeth are of wrought or cast iron, and are inserted in the staves, and are fastened by means of keys or nuts upon the inside.

Oats require strong rich soil, good culture, and early sowing.

DICTIONARY OF TERMS

Used in Agriculture and its Kindred Sciences.

FRIABLE. When a soil is so constituted by the admixture of the original earths, and the addition of vegetable and animal matter, that it works easily; is penetrated without difficulty by the roots of plants or by the plow; which does not form clods when worked wet, or turn to dust when dry, and which is good for nearly or quite all cultivated crops, it is termed friable. Tillet of Paris instituted a great variety of experiments on the fertility and friability of soils, and the one that united these essential properties the most fully was composed as follows:

Coarse silex or pebbles,	25	Silica or sand,	21
Alumina or clay,	16·5	Carbonate of lime,	37·5

One of the best soils analyzed by Davy, and which was noted for its friability, its good wheat, and general fitness for cropping, was constituted as below:

Carbonate of lime,	28	Alumina,	29
Silica,	32	Animal and veg. matter,	11

The intervale lands of most rivers are friable; we need refer only to those of the Genesee, Mohawk, and Connecticut.

FRICTION. A very large part of the power required to move a thrashing machine, a wagon, or a plow, is expended in overcoming the passive resistance of simple friction; and the greater in any case the space on which this acts, the greater will be the force required to overcome it. A wagon, the axles of which run on rollers where the friction is reduced to its minimum, will move over a surface with much less force applied, than one where the whole surface of the axle comes in contact with the inner part of the hub, and the friction of course is at its maximum. The experiments of Mr. Pusey of the English Royal Agricultural Society, proved that in all soils, the celebrated Scotch plow which, from its structure of share and mold-board, exposes a great extent of surface to friction, was so much impeded from that cause, that a large part of the power of the team was expended in overcoming it; and that in tenacious soils at least one half of the force exerted was required to overcome the effect of this cause. It is clear then, that a light plow, with part of the weight supported on a wheel or wheels, and with the least possible surface exposed to friction, will move the easiest for the team; and in all implements and machinery, the lessening of the friction is one of the most important things to be aimed at in their construction.

FRUIT. The seed with its envelop or pericarp, is the fruit of a plant or tree. Sometimes the seed is perfect without such covering, and then it is termed naked; this is the case with corn, sage, and other seeds. The fruit of plants furnishes man with some of his most healthy and delicious food, as the apple, orange, peach, grape, &c., prove. Some fruits grow of an enormous size, of which the Valparaiso and mammoth squashes or pumpkins, are examples. As a general rule, the largest fruits are not the best, or the finest flavored. Fruits are much improved by cultivation, of which the apple is a familiar instance; all the varieties now known having originated, it is supposed, from the crab apple.

FUEL. This indispensable article is most commonly composed of either wood, peat, or coal; in this country usually the first. Wood is composed of carbon, hydrogen and oxygen; to the two last of which, combustion or flame is owing, when wood is consumed in the open air. When the oxygen and hydrogen is expelled without combustion or only a partial one, as in the coal pit, the carbon is left, and is termed charcoal. The hard woods make the best fuel, such as hickory, or sugar maple; some of the soft woods burn with great rapidity when dry, as linden or pine; while some, such as the Lombardy poplar and chestnut, can scarcely be consumed at all.

Peat is the remains of vegetables, accumulated in swamps or low grounds, during a long series of years. It is taken out, pressed to force out the moisture it contains, then dried for use. It makes a most valuable material for fuel, and though as yet little used in this country, it forms the principal fuel used in large portions of Europe.

Coal is either the charcoal made from wood, or that obtained from the earth, and called bituminous or anthracite. (See Coal.)

In a large part of the United States, fuel forms one of the most important items of expense to the householder; and is as a whole, constantly becoming of more consequence. Even in Western New-York, and parts of Ohio, where only a few years since, the great inquiry was, how shall we dispose of our wood, wood for fuel is becoming comparatively scarce. The value of these lands for cultivation when once cleared, forbids their being allowed to grow up again to wood, and the impolitic practice of most farmers in clearing much more land than they can possibly till well, has greatly aggravated the evil. Economy in the use of fuel, has then become indispensable, and the best methods of using it requires careful consideration.

In the first place then, the house must be built in such a manner and of such materials, that a small quantity of fuel only will be needed. A few hundred dollars in the construction of a house, will save perhaps, thousands in heating it, and at the same time render it far more comfortable and conducive to health. Houses built of stone or brick, if constructed so as to prevent the dampness, which unless guarded against, is apt to arise from such walls, are undoubtedly the best. The great points to be attended to, are warmth and ventilation. See that the first is secured, and the temperature can easily be regulated by the latter. Fire places are the most wasteful way of using wood, as two thirds at least of the heat generated (Count Rumford says four fifths,) is lost to all useful purpose, being employed in heating the chimney, or the air above it. Stoves, and of these there is an almost endless variety, are coming into general use, and are undoubtedly far superior in economy, neatness, and ease of domestic management to the fire place; still as generally used, much of the benefit that should be derived from them is lost. By means of a stove with proper fixtures in the basement story of a dwelling, a whole house, properly constructed, and indeed almost any one, may, by means of heated air conducted in pipes where wanted, be heated to any temperature compatible with health, and at an expense which is scarcely worth mentioning, when compared with the ordinary modes. We advise every man who builds, to look carefully at the question of fuel, and consider the best means of avoiding unnecessary consumption.

FUNGI. This name is applied to a class of plants embracing a multitude of species and varieties, some of which are of great consequence as seriously affecting other plants and substances, upon which they are parasitical. Under the name of fungi are not only mushrooms, toad-stools, &c., known, but the microscopic mold, mildew, smut, rust, and dry rot, are also included. The varieties that most interest the agriculturist, are those that affect cultivated plants and trees, such as the *Uredo* and the *Puccinia*, which are the most common kinds that infest wheat and corn, causing in some one or other of their varieties the smut and the mildew. The fungus *Ecidium*, particularly the *Ecidium berberis* has been supposed by many to affect fields of wheat injuriously, when these were so situated that the rust or sporules of the *berberis* could be blown from the tree upon the grain. The experiments made by Col. Hecox of Skaneateles, and described by him in the 7th volume of this journal, would prove that this belief is a popular error, even did not the microscope show that the two fungi which infest wheat and the barberry are entirely different plants.

Fungi are propagated by the sporules or the minute seeds which seem at times to fill the air, as every spot suitable for their growth will be found to have been seeded in a few hours. Of the immense numbers of sporules given out by some of these plants, some idea may be formed from the fact that the smoke of the puff-ball is nothing but millions of these light, but fertile particles. All fungi flourish the most in damp moist places and weather, when the temperature is sufficiently high to give a rapid vegetation. Wheat therefore, is always found to suffer most from mildew or fungi, when hot, damp weather occurs at the period of filling the ear, or the dews known as honey dews occur, which seem a proper nucleus for the propagation and spread of this parasite. Low lands suffer more from mildew, than high ones; and plants of a forced and rapid growth, such as those in places highly manured, or which grow in the midst of summer, are more generally attacked than others.

The *dry rot* which is so destructive to our navies, and to timber generally, is occasioned by a fungus. The thallus or spawn, is fixed in the minute pores, and spreads with the greatest rapidity, destroying the life of the wood and rendering it brittle and worthless. The fungus is of several kinds, such as *Merulius lacrymans*, *Polyporus destructor*, two highly organized fungi; and particularly the *Sporitrichum*, which has been more destructive than any other, to the immense deposites of oak collected at Sheerness, for the British navy. Many experiments have been made to test the value of various preparations in preventing dry rot, by Dutrochet and others, but though some of the poisons used, checked, none proved effectual in destroying it, or preventing its spread, with the exception of red precipitate or corrosive sublimate, which destroyed the vitality of the plants or the sporules entirely. On this result has been founded the process patented by Mr. Kyan, of impregnating timber with a solution of corrosive sublimate, termed the Kyanizing of wood.

The disease called La Muscadina in silk worms, is an instance of animal dry rot, or death caused by the growth of a fungus. This plant, the *Botrytus Bassiana*, perfects its thallus or sporules in the body of the worm, filling every part with such a mass that they are easily broken, and the skin bursts, showing the efflorescence of the fungi. If healthy worms are covered with this thallus, they sicken and die, and if a needle dipped in the substance be inserted in the body of a well insect, it catches the disease at once. The fungus called *Sphaeria militara*, attacks wasps and bees in the West Indies, and causes their death in a short time; and such are by no means solitary instances of such insect parasites.

FURROW SLICE. This is the name given to that part of the soil which is either wholly or partially inverted in the process of plowing. The position in which the furrow slice should be left, is one of the most contested points of modern agriculture; some farmers contending it should be laid flat, and others that it should be left in an angle of inclination of nearly 45 degrees. It is probable that the advocates of both systems are partly right and partly wrong. Where a soil is very light and porous, compactness in the surface is to be aimed at, and a furrow slice laid flat, will admit of compression by rolling. On the contrary where the subsoil is retentive, and the aim in plowing is to render the soil light and friable, leaving the furrow slice in a lapped and consequently inclined position, leaves space for the roots of cultivated plants to expand more freely, and the water to drain off more readily. In the latter case, a furrow slice of 9 inches in width should be about 6 inches thick; while where the slice is to be laid flat, the width in proportion to the thickness must be much greater, or twice or three times its thickness. The furrow slice of an English plow is rarely more than from 8 to 10 inches, while that of an American one is usually from 10 to 14. Generally speaking, the narrower the furrow slice, the more complete the pulverization of the soil, and consequently this necessary point must be determined by the condition of the land to be plowed.

GALVANISM. This is one of the forms under which electricity is made to develop itself, and in which it performs many important operations in nature. When electricity is produced in such a manner that it passes from one body to another in sparks or masses, as in the common electrical machines, or from the clouds to the earth in lightning, it is called simple electricity; when the wires or conductors of an electric battery are in contact, the current passing produces effects said to belong to electro-magnetism; but when the wires or conductors are separated by some interposed substance which forms an imperfect conductor, the physical changes which the interposed substance undergoes, constitutes the phenomena of galvanism. It is owing to electricity in this latter form, that the principal changes in matter appear to be owing. By means of his simple electro-chemical apparatus, by which a current for months or years may be kept up, Mr. Crosse, one of the most successful experimenters of the age, has produced carbonate of lime, arragonite, quartz, protoxide of copper, arseniate of copper, and its blue and green carbonates; phosphate of copper, chalcedony, carbonate of lead, &c. &c., circumstances which render it probable that all the minerals, veins of metallic ores, and the processes of crystalization and accumulation of matter, including the growth of vegetables is the result of galvanic or electric action. It is thus rendered nearly certain that manures act by the salts they contain, acting when brought in contact with the earths in producing galvanic currents, and thus giving vitality, or the power of absorption, nutrition and growth, qualities possessed by all plants. As there is still some doubt as to the origin of the animalculæ produced by Mr. Crosse in some of his various experiments, we shall pass them by with the remark, that the curious on the subject may find a full account of the matter in the late volumes of Silliman's Journal.

GANGRENE. Plants are liable to be attacked by a disease which from its producing on them the results of gangrene on animals is called by the same name. It is a species of mortification and rapid decay, which, unless arrested at once, destroys the plant. It sometimes appears on the branches or the trunk of trees, and steadily advances until it is carefully cut out, or the tree dies. In plants, the part attacked dies, and the remainder continues sound, though at times the whole becomes eventually involved. Thorough excision is the only remedy for this disease, which from the difference of appearance it assumes, is called the *wet* and the *dry* gangrene.

The Plow.

The opinion expressed by us in the first number of the present volume as to the cause of the heavy draft of the English plow, beautiful as is their form and construction, has received further confirmation from an experiment made on one of these plows near Nashville, Tenn. We copy from the Agriculturist: "Mr. Collins had the pleasure of witnessing one of the splendid agricultural exhibitions of the "mother country," and was particularly interested with the trial of plows, so much so that he had one made entirely of iron, after the model of the instrument that took the first prize, and with the supposition that it would be of great service to the farmers of this country, he put it in our possession for a trial. Two strong horses were hitched to it, but in a few rounds in a stubble field, the draft was found so great, that the horses had to be stopped. This extra power is the first objection to the plow. *The bottom of the implement is about four feet in length, and drags remarkably heavy.* The share does not cut a sufficiency for the mold board, and from the pressure of the 'heel' and mold board at the same time, the draft is too much for a common team. * * * * This *great sled wedge* of a plow, may do better in the tough clays of England than in this country, but nothing short of the English draft horses would be able to pull it."

If our readers will take the trouble to look at the experiments made by Mr. Pusey, and described in our first number, they will see that the same bad effect, resulting from its heavy draft, was as sensibly felt there as here, while using the improved Scotch iron plow, the same brought out by Mr. Collins. We are glad to see this important point, the increase of draft from friction, attracting the attention of the public, as we are confident the result will be the production of implements of lighter draft, and equally good work, with the best plows now in use.

Remedy for Kicking Cows.—A bed cord drawn tightly over the loins of cows, in front of the udder, will cause them to give down their milk, and also prevent their kicking. J. G.

Original Communications.

"In Agriculture, EXPERIENCE is of great value—THEORIES of little, excepting as they are directly deducible from actual experiments and well attested facts."

Improvement of Lands—Yards for Animals.

MESSRS. GAYLORD & TUCKER—Having redeemed a portion of my farm from absolute sterility, and the remainder from a state of nature, and believing that a detail of my progress may not be uninteresting, I send the same for publication. When I purchased and took possession of this tract, which was in the spring of 1823, it contained 350 acres; of which 175 were creek and branch bottoms, 80 were uninclosed galled old fields, and 95 woods. The creek bottoms, amounting to 153 acres, were all that were fenced, and all that were believed to be worth fencing; and these had been continually cropped with corn, rye, wheat, and oats, for about 80 years, so that they were completely exhausted; many spots being bare of vegetation through the year. The produce on the better portions was about fifteen bushels of corn to the acre, and of small grain about one-third of this. About half of those bottoms were stony and sandy; the balance clay, mostly white and unctuous; only one short ditch on the premises, consequently several brushy swamps; and nearly the whole surcharged with persimmon bushes and poverty briers. I wish it distinctly understood that there is neither fiction nor exaggeration in the above explication; and to add still further to the gloomy prospect, I will state a few more facts; the bottoms were liable to damage by inundation; there had never been a particle of grass seed sown on the premises, and the houses of every description were in a complete state of dilapidation. It will now be asked what could have induced *me* to purchase such an outcast property? To which I reply, that on examination I found the hills were a healthy clay, and that the bottoms were susceptible of a high degree of improvement, by ditches, manures, and irrigation. My first effort at improvement was to cut a canal nearly a mile long, for the purpose of casting water, and with it mountain mold and mud, on my bottoms; and this effort was crowned with success, for in one year a plot of twenty acres was made sufficiently rich to produce a heavy crop of tobacco. The canal enters near the head of my lands, and at the distance of half a mile a fall of 26 feet was obtained, where I erected a saw and grist mill; from which mills the water either passes off by a tail canal again to the creek, or continues around the hill as required. Thus I have two fields of about 40 acres each, which are irrigated when not under tillage, but this is not oftener than one year in four.

My next effort was to ditch my bottoms for the purpose of draining off superfluous water, which is very nearly completed.

I now turned my hands to picking up stones, nearly every one of which have been piled, and about one-half removed when and where wanting.

In the mean time I was not inattentive to the accumulation and spreading of my small stock of manures; but more of this presently.

My old fields were now fenced, and the gullies stopped, and galls cured. Finally, houses built, and lands purchased and cleared; so that my tract now contains 1500 acres, about 700 of which are enclosed, and about 500 under a course of tillage.

I will now speak of my manures and manner of estimate. When I speak of a load let it be understood as one for a yoke of oxen. When a horse-cart is used, two loads are put together and counted as one; each load from the yards of animals is counted as one; a load of straw or damaged hay one; saw dust and chips one; scrapings about houses one; compost mold and leaves one; compost ashes and leaves one; raw mold two for one; ashes five bushels for one; green vegetables, plowed down, estimated according to burthen; trees and shrubbery cut down to rot, according to burthen and length of lying; drift cannot with any degree of accuracy be counted, nor are the felling of trees or the drift included in the underwritten table. My memorandum of manurings previous to the year 1829, has been lost, consequently I cannot give an official detail, but when it is remembered that I had no meadow, that my land was very poor, and when I further state that I found no manure on the premises, and that my animals were fed for the winter at my former residence, consequently I had no manuring for two years, it must be admitted that I had a most discouraging start.

Year 1829,	Loads	381	Year 1835,	Loads	908
" 1830,	"	142	" 1836,	"	891
" 1831,	"	286	" 1837,	"	4110
" 1832,	"	640	" 1838,	"	626
" 1833,	"	477	" 1839,	"	669
" 1834,	"	608	" 1840,	"	2400

Although I have for several years past been in the custom of plowing down small portions of green crops for improvement, yet on examination I find that no estimate is made on this account, previous to 1840; and as a sample of my operations in general, I give the memorandum verbatim for the above mentioned year. I count the year's manuring from July, 1839, till July, 1840. Turned down 30 acres oats, equal to 300 loads; moved from cattle yards 508, from horse yard 177; from hog yards 226; compost leaves and ashes 11; compost trash and ashes 20; compost ashes and salt about 640 bushels, equal to 93 loads; estimate about houses and saw dust 70; straw [illegible] &c. to make up the balance [illegible] the above

I have accumulated some tens of thousands of loads of mold on my bottoms, and cut down the timber to lie till decayed on about 250 acres of land, that is, since commencement.

This year my manurings will amount to about 2800 loads; to move which, my carts have been in motion and will be continued at every opportunity till about the middle of April. Let it be understood, nevertheless, that the actual carriage will not be this amount, but about 2200 loads.

My bottoms will now produce from 40 to 120 bushels of corn to the acre, my hills from 20 to 40 bushels, and both yield small grain and grass in proportion.

My horse yard is littered with leaves from the woods. My cattle yards are bottomed with mold from ditches, which ditches are expressly appropriated to this purpose; then corn stalks, tops, husks and cobs, straw of small grain, and hay.

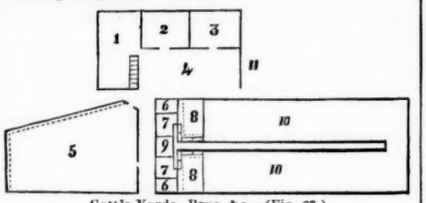
My hog yards are littered with leaves, corn stalks, rotton wood, green weeds and grass, and at intervals with small portions of damaged straw or hay.

My sheep have heretofore been fed at large, but the ewes and lambs are now cotted, from which source, however, I expect but little manure, as the yard is not littered, except with the offal of their feedings.

I shall now be enabled to manure annually about 30 acres of my best bottoms for corn, which with the aid of two or three drafts of creek water, applied to the growing crop, will ensure me a sufficiency of this grain: besides giving an annual dressing to my hog garden, also to portions of my meadows, and sections of high grounds.

My stable and horse yard, cow yards, hog yards, and sheep cot and yard, are all contiguous. They are located near the center of the farm, the two first mentioned having pure spring water already piped therein, and the two last intended to be shortly supplied.

Believing that the economical arrangement of those domicils and yards are at least equal to any thing I have seen in your Cultivator or elsewhere, I send a drawing for publication.



Cattle Yards, Pens, &c.—(Fig. 37.)

No. 1 is my stable and horse yard—2, 3 and 4, are cattle yards—5 is the sheep cot and yard—6 and 6 are apartments for boars—7 and 7 for sows and pigs—8 and 8 for hogs—9 is the vegetable house—10 and 10 the hog garden. The openings are gates and drawers; the close parallel lines are passages and troughs, the dotted lines represent shelters; there should be shelters also over the pens 6 and 7; and between the sheep yard and piggery a passage of 10 feet to a bottom field—11 meadow below yards.

The piggery is not yet complete, but will in a few days receive its tenants, who when incarcerated are intended to labor for their living, by compounding manures. The hogs in one yard will be slaughtered about the middle of November, and in the other about the last of February; at which times the yards will be cleared of manure, and retenanted with pigs.

When required, the water from the mills now passes immediately above the sheep yard, thence on to the hog garden or meadow. The drainings from the larger cattle yard number four, also issues on to the meadow from the point marked 11; at which point I am now constructing a large wooden cistern for the purpose of retaining the urine when desired. The cistern will have a plank partition near the bottom of which many large auger holes will be bored, so that by this means a communication may be had. Into the upper apartment I intend to cast every animal which may die on and about the premises, adding a sufficiency of ashes and lime to produce a soapy matter, all of which can be flashed on to the meadow, by letting in the creek water; or carted off when required. The upper apartment being elevated somewhat above the lower, the water will not flow from the surface, but pass through the auger holes, and thus the valuable contents of the pool will be stirred up and move off in order.

My laborers amount to only eight. My cows (cattle) from 30 to 60 head, my sheep from 200 to 300, my hogs from 60 to 120, but when my permanent piggery goes into operation, it is intended to keep a uniform number, of about 132. My cattle are three-quarter and half Durhams and scrubs; my sheep are Lincolns, Bakewells, crosses and scrubs; my hogs are Berkshire, Bedford, Mackey, Baraitz and crosses. My grasses are herds, (red top) orchard, green sward, and white clover, which are all indigenous; also red clover. My cattle and sheep are mostly grazed about ten miles from my residence, on the big mountains, and brought home to winter; and thus my improvement is enhanced.

My operations are on a small scale when compared to many southern farmers and planters, but I believe but few of them go ahead of me when counting by the acre: indeed I begin to think that I may make a good farmer yet 'ere I die. But there is one great stumbling block in my way. I am a grower of tobacco; and this year intend to cultivate the weed on about 22 acres, which is more than usual for me. This crop I only cultivate on new lands, and there only because it prepares ground better for the grass seed which are intended to be sown.

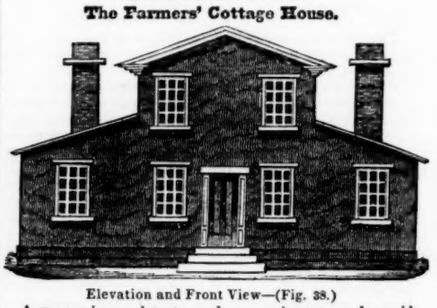
Messrs. Editors, I am tired and I am satisfied so are you, consequently I will close, with this one request—please send a few Yankee farmers amongst us, that we may learn economy. Z. DRUMMOND.

Amherst Co. Va. Feb. 2, 1841.

P. S. Continued rains having caused water to rise in the excavation for the cistern above mentioned, I have abandoned the determination of planking it the present year, and am now casting in leaves and damaged straw and hay, which is saturated with urine from the yard. Dead animals will also be cast in. The size of the cistern is 13 by 21 feet and when completed the depth will be 7 feet. Z. D.

February 10.

The Farmers' Cottage House.



Elevation and Front View—(Fig. 38.)

A HOUSE in good taste and convenient, may be said to constitute the chief pride of many farmers, and indeed many persons in the highest circles of society. Il liberal persons are, however, prone to decry all those constructions which do not ordinarily enter within their own peculiar views, taste, and means.

Modern buildings generally are more commodious and beautiful than those castles of former times. We do not hear so many execrations uttered against those dwellings which vary from the old mode; where ornament, order, compactness, and good taste are displayed.

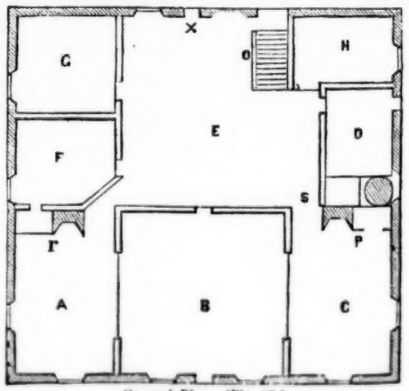
Therefore, if true, that the community are growing more liberal, they will pardon me if the following plan of a farmer's cottage house, should not accord with all their system of building.

As for size, compactness, and cost, this plan is adapted to the medium class of farmers, which constitute the greatest portion of your subscribers.

Fig. No. 38, displays the elevation and front view, looking towards the east; the gable ends and the sides, may be either stone or brick to the first roof; in the representation it is stone, with the chimneys of the same material. If the builder is disposed to make flat roofs, and cover them with tin, and set thereon a ballustrade, it would have a grand appearance.

The ground floor should be two feet above the surface earth, and sixteen and a half feet from this floor to the main roof, and from said floor to the eaves of the wings eight and a half feet.

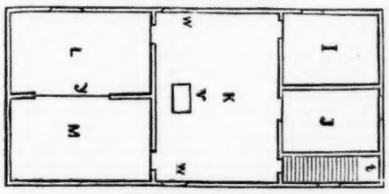
Fig. No. 39, gives the dimensions and divisions of the ground plan 36 by 37½ feet within the walls. The main building 16 by 36, and the wings 10½ feet by 36.



Ground Plan—(Fig. 39.)

EXPLANATIONS.—A. represents the dining-room, 16½ by 17 feet, with folding doors between this and the parlor B. which is 16 by 17—C. library and sitting-room, 10½ by 17, with a cupboard at the right hand of the fire place *p*. and folding doors between this and B. so that the three rooms may be opened into one when wanted—D. wash-room and arch, with an outside door for convenience, and to ventilate the kitchen E. in warm weather, which is 19 by 16, including the stairway *o*. for cellar and chambers, and not including 3 feet space added by the side of the wash-room and oven *s* with glass lights over the parlor and wash-room doors, provided a wood shed should hide one of the windows near the

back door *x*. to be accommodated by a cook stove—F. and G. bed-rooms, to use a stove if necessary, with a clothes-press at the left of the fire-place *r*.



Chambers—(Fig. 40.)

Fig. No. 40, represents the manner in which I would divide the apartments of the second story—K. common chamber 12 by 16 feet, with a stairway at *t*. and warmed by a box-stove *v*. the pipe of which will go through the wall at *w*. between roof and ceiling, and enter the chimney, which should be well secured by a double pipe laid in before the house is ceiled—I. J. bed-rooms, or J. might be made smaller and used as a clothes-room—L. M. parlor chambers, 14 by 16, with four windows to make it cool and pleasant, or close the folding doors *y*. and divide it into two bed-rooms when wanted; the side windows in the chambers are not full size.

A house of the above description would cost from eight to twelve hundred dollars, depending on the country where it is to be erected, and the manner of finish.

In the art of building there are three important items to be considered, viz: convenience. firmness, and delight. To accomplish these ends we must have due regard for the *situation* and the *work*. As to the situation either that of the whole is to be considered or that of its parts. In the first, regard must be had to the quality, temperature and salubrity of the air; to the quality of the soil, to the conveniency of water, fuel, &c., and to the agreeableness of the prospect. As to the situation of the parts, the chief rooms, studies, libraries, should be towards the east; those offices which require a cool fresh air, as cellars, pantries, granaries, to the north; those which require heat, as kitchens, washrooms to the south.

In the above plan I have situated the front to the east, but as to this matter in building regard must still be had to the country, roads, &c., each being obliged to provide against its own inconveniencies.

Yours, SOLOMON W. JEWETT.

Weybridge, Vt. Jan. 16, 1841.

Zea Maize or Indian Corn.

MESSRS. GAYLORD & TUCKER—Agreeably to the request contained in the Cultivator for February, (p. 28,) the subscriber forwards to the editors four ears of *white flint corn*, as samples of his crop of 1840. This variety is generally raised and appears to be best adapted to the soil and climate of Richmond county, which is the smallest in the state, being an island situated under the lee of New-Jersey, between 40 and 41 degrees of north latitude. It is better and more generally known, by its insular name of Staten Island, and is rich in the production of wheat, rye, barley, oats, Indian corn, &c.; but its agriculture has been neglected, because being surrounded by the water of the ocean, many of its inhabitants procure a living in taking fish, clams, and oysters, which abound in their season upon its shores.

The samples of corn forwarded to you, are from a crop of ten acres, the ears of which are all of a large size, and well filled, many of the stalks having borne two and three ears. Most of the ears contain eight rows, but there are found among them some of ten and twelve rows. The seed was planted between the 12th and 16th of May, 1840, and cut at the bottom and stouted between the 22d and 25th of September following, its period of growth being a little over four months. The grain is white, hard and flinty, keeps well, and makes good Indian meal; and the shelled corn brings the highest market price in the city of New-York.

The seed from which the crop was raised, was selected from the best ears of my crop of 1839, and from those stalks which contained two good ears. The corn was planted on a grass sward overrun with johnswort and daisies, and turned over in April. It was manured in the hill, with a mixture of horse dung from the city of New-York, and my own coarse barn-yard manure. No extra pains were taken with the crop, which was a fair average one, producing 1025 bushels of ears, equal to 512½ bushels of shelled corn, or 51 bushels per acre; besides a large quantity of pumpkins. Your neighbor Mr. C. N. BEMENT, saw and admired the crop, when nearly ripe. With the horse manure from New-York, was introduced a great quantity of foul seeds with which the corn and an adjoining patch of potatoes were overrun. They were mostly extirpated from the corn field, but the potatoes suffered for want of help to weed and hoe them, and from the pressure of other work.

The above contains the amount actually gathered; but the crop would have probably yielded fifty-two bushels to the acre, had not a dozen neat cattle broken through my neighbor's part of the line fence between us, and luxuriated all night, eating, trampling down, and destroying many of the stouts. One corner of the field was also reserved and eaten green, and not taken into the account. Considering this as an excellent variety of corn I shall reserve a number of barrels in the ear, and deposite them with Mr. SAMUEL BROWN, No. 4, Liberty-street, New-York, to supply my friends and those who may wish to cultivate it.

The farm I occupy lies on the south side of Staten Island, facing the ocean. It was formerly owned and occupied by Judge GARRETSON deceased, and after his death had become considerably dilapidated, and overrun by johnswort, daisies, and elder bushes when purchased by me in the spring of 1839. Considerable efforts have been made to bring it into better cultivation, and I hope to be able to communicate something to your valuable periodical as my experience increases. There are twenty or more acres of woodland upon it, but the best timber had been cut off before my purchase. The wood lots, however, are springing up abundantly with young hickory and *white oaks*, and hence I have given it the name of OAKLAND FARM.

My neighbor, W. A. SEELY, is showing how the farmers on the south side of Staten Island may supply themselves with a superabundance of manure by a proper use of peat, sea weed, fish, and their ordinary supplies of litter without the necessity of buying it.

Respectfully yours, SAMUEL AKERLY.

Oakland Farm, Southfield, Richmond co. March 3, 1841.

Feeding of Silk Worms.

MESSRS. GAYLORD & TUCKER—Inquiries from "B. G." were made in a recent number of the Cultivator, "whether silk worms partly reared on the white mulberry, may be fed with safety on the large leaf Canton, or multicaulis; and also, whether they may be fed with these kinds together or alternately with advantage; and if not, what is the best method to be pursued where these different kinds are to be used?"

The following information I received in a communication from an experimenter, who has been doing something by the way of growing silk and feeding the silk worms from the leaf of several varieties of the mulberry, which I consider good authority, and I have taken the liberty to forward the correspondence to you for publication. S. W. JEWETT.

LETTER TO S. W. JEWETT.

DEAR SIR—Your inquiries whether the silk worm can be fed on the common varieties of mulberry during two or three of the first moultings and then carried through on the Canton or multicaulis, I should give it as my opinion that it might be done with perfect safety. I see no reason why a change of feed from one to another, on any good varieties of mulberry leaf, should affect the health of the worm, and the quality of the silk, therefore, would only vary according to the proportion of leaves of the better or poorer qualities that are fed to the worms. I have supposed that it would be altogether the most profitable way, and almost the only practicable one, to feed the worms on the other varieties through about two-thirds of the age of the worm, and then feed on the multicaulis.

The reasons for this are the following: *First*, If you wait for the multicaulis to get a sufficient growth, so as not to injure them by picking the leaves in the higher latitudes of our country, say Maine, New-Hampshire, Vermont, and the northern part of New-York, unless you start them early in the hot bed, it will be too late before the worm will wind its cocoon if you depend wholly on that variety. But *Second*, if you have indigenous and other varieties to feed upon the three first weeks, when the labor of picking is comparatively little, the multicaulis will increase its foliage during that time, more than all the season before, having taken deep root, and if stripped entirely, and even cropped as early as the first week in, or middle of September, it will facilitate the hardening of the wood.

The six weeks worms should be hatched out the last week in July, and fed on the Alpine or some other variety of mulberry. The white will answer till about the twentieth of August, and then the worms are old enough to eat the bottom leaves of the multicaulis, which may be picked first and thus the trees stripped to the very top.

For the purposes above, one may extend his plantation of permanent trees, of the Alpine American seedling, Broosa, Canton, Asiatic, and other varieties that will stand our winters, to any extent he pleases, and rear from them a crop that may be hatched out as soon as there is foliage in the spring. The same trees would not be materially injured to be picked again the last of July and first of August, sufficiently to carry the crop of worms designated for the multicaulis half through their growth. Indeed, it is not quite certain but that for this northern climate these varieties are most profitable, as they remain rooted in the ground, and ready to sprout up in the spring early, and afford more foliage in our short seasons than can be obtained from the multicaulis. They are not quite so easily propagated by cuttings as the last mentioned variety; indeed they cannot be propagated profitably by cuttings. By planting the tree, root and all, horizontally, they will increase as fast as the multicaulis planted in the same manner, which, on the whole, one season with another, the best way. But a still better way of propagating them is to bend down the sprouts of one years growth, still attached to the old root, and fasten it horizontally by a hook and cover it with fine dirt and it will send up a large number of sprouts, which, first supported by the old root, till they take root themselves, after two or three hoeings, and supported by the double root will grow most rapidly and afford an abundant foliage. The last season my Alpine sprouts grew six and some more than seven feet, yielding leaves of a fine velvet surface eight inches long and six wide, and more numerous on the stalk than the multicaulis. The Alpine will grow till frost comes, and of course the tender parts will kill down in winter; but so far as it becomes lignified, or wooded, it will stand the northern winter.

There is still another variety, that comes from multicaulis seed, called by some the American seedling, that grows very rapidly, is much earlier in the spring than the Italian white, hardens, and nearly stops growing before the early frosts, and therefore kills down but little if any in winter. The leaves of these are not of as fine a texture nor as large as the Alpine, but very thick on the stalk, and much larger than the white mulberry.

With a plantation of standard trees of the Alpine, Broosa, and other varieties, to say nothing of the multicaulis, I fully believe that children from the age of eight to twelve, with the aid of some one to superintend the feeding, and that may be an aged person who could do but little else, with the leaves near, could pick enough out of school hours to yearly support themselves and go to school all the time; and then on to the age of twenty, with facilities for reeling and manufacturing of sewing silk, &c. the other seasons of the year, might be more profitably employed than in any other business while attending school. With a plantation convenient, and sufficiently extensive, it is my opinion that sons and daughters might fully support themselves through their preparatory studies from ten to twenty, and through the high school and college. I view it as the most feasible manual labor system that can be connected with our seminaries of learning. DANA LAMB.

Bridport, Vt. Feb. 16, 1841.

"American Society of Agriculture."

MESSRS. GAYLORD & TUCKER—The February number of the Cultivator is before me, and I have read your reasons for "declining to assume the responsibility which your friends had assigned you, at least, for the present."

I am willing, and do freely acknowledge, that your means of information are such as to enable you to come to a more calm conclusion upon the subject than I can, and perhaps your reasons are cogent, though I hope not conclusive, to all the friends of a National Society. I cannot regret the conclusion that you have come to, for it is the very one to cause the matter to be discussed; and the case is of that importance, that it should not be acted upon rashly. I am ready to admit, "that a failure would be a serious calamity;" but I am not ready to admit, or even believe that there are so few "men of public spirit, friends to agriculture, and alive to the interest, prosperity, and honor of the country," as you seem to fear. I believe that there are at this time "*enough* of such men to be found," who, notwithstanding they are "wide-spread," from "Maine to Georgia," would lend sufficient energies "to render such an enterprise certain of success."

I am happy to see you admit the utility of such a society—in fact, I don't know that that is denied or doubted by any one—the only point at issue, then, is, as to the proper time to commence the organization. This, then, is the sole question for the friends of the cause to answer: *Shall the organization of a National American Society of Agriculture, be undertaken in the year* 1841?

Readers, correspondents, friends of the project, one and all, speak, yea or nay. If the answer be in the affirmative, I will show you ways and means to "set the ball in motion." The thing *can*, if you say it MUST, it SHALL be done. But remember that the worthy editors of this paper are doubtful of the feasibility of the undertaking, and their opinion is entitled to consideration; but if we conclude to "soberly rely upon ourselves, and our own resources," and are likely to succeed, they will come to our aid with the power of Hercules; and so will the editor of every agricultural journal in the Union—so will every legislator, for the project will be "popular." No doubt your correspondent speaks truly when he says, "if we are to have a National, or American Society of Agriculture, it must be got up by farmers themselves." Shall we, the present generation, have it—shall the ardent and devoted friends of a cause that seeks "*to elevate the character and standing of the cultivators of the American soil*," have an opportunity of meeting one another, upon a spot so consecrated as that will be, where such an union of hands and hearts would take place. How ardently do I long to see such a meeting of such men as will compose such a society. Such a meeting will, sooner or later, take place, for it is the nature, disposition and education of the people of this country, to assemble together to discuss important questions. Is any question now before the people, so important as improvement in agriculture? Does not the wonderful extension of the number and circulation of agricultural journals, show that the public mind is deeply agitated upon the subject.

And now friend GARNETT, what say you? What says old Virginia? What says old Kentuck, through friend STEVENSON, of the Kentucky Farmer? And upon "sober second thought," what say Messrs. GAYLORD & TUCKER? If monthly "agricultural soirées" are so pleasant and useful, how much more so would be a grand *National Concert*.

And with anxious hopes to live to be one of the performers at that "concert," I remain an unwavering friend to speedy action, and yours, with respect and esteem,

SOLON ROBINSON.

Lake C. H. Ia. Feb. 18, 1841.

Tagging and Washing of Sheep.

Messrs. Editors—As the time is approximating when the wool grower may expect remunerating prices, I think that a few hints, founded on my own experience, in reference to the preparatory steps to shearing of sheep, will be acceptable to some of your readers. It cannot be denied that the neglect to attend to these matters, as interest and common honesty require, has subjected the American wool growers to much deserved censure from the manufacturer; and I will prove by an unexceptionable witness, before I close, that we are more slovenly in the preparation of our wool for market, than any other people who have any *pretensions* to civilization, on the face of the globe. But I will forbear to censure, although I feel quite certain that no subjects could be selected, which would furnish so much ammunition for the discharge of broadsides.

The great majority of farmers do not tag their sheep at all; at least do nothing more than merely cut off the distinct locks, and largest lumps of excrement. This is performed sometimes at the period of washing, but more frequently neglected until shearing. Those who manage in this way, if they have a surplus of wool beyond family consumption, subject themselves to much censure; for the reason, the manufacturer expects of the wool grower that a portion of the wool about the dock and flanks should be separated from the fleece, which, with the ordinary wooled sheep, is little better than dog's hair; and therefore gross deception follows if it is not done. In consequence of the great neglect of this, arises very many of the actual frauds upon the manufacturer, by concealing all this trash, with the dirt adhering to it, inside of the fleece, and then carefully wrapping an extra quantity of twine about it, in order to prevent detection, as well as to increase its weight.

But aside from all this, there is an absolute gain to the farmer by tagging his sheep well, if done at the right time, which, in all cases, should be before the loddering season expires; because, if neglected until after that period, the sheep feeding on young grass, will occasion many to scour; and if so, the wool about the flank is rendered one compiete mass of filth, and of course, is a total loss; whereas, if done at the time mentioned, it will be taken off comparatively clean, and can be used in many ways for family purposes.

The period I have chosen for tagging of sheep, is from the 1st to the 10th of April. As early as this, is very necessary for other reasons than those already cited. The ewes are generally, with all fine wooled flocks at this time, heavy with lamb; and I remark, they should be carefully, nay tenderly handled; who does otherwise, has not the humanity of a savage. The easiest mode, and that which I have adopted for many years, is to place the sheep upon a bench, resting on its rump. The bench should not be more than two feet in height, and a stool should stand beside it on the floor, for the tagger to rest one foot upon; this brings his thigh in such a position as to rest the back of the sheep on it, and throws the animal in a position of about 45 deg. After this, if it be a male, the first operation is, to cut the wool immediately about his *water works*, because, if not done, the wool being constantly saturated with urine, will cause soreness and sometimes ulceration; sheep have sometimes died from this cause. If it be a ewe, the first thing to be done, is to cut the wool growing around the bag, and particularly all that upon it; if this is attended to, the lamb in its first attempt to suck, has no difficulty in finding the tents. Then cut the wool from the inside of the hind legs, and that below the *fundamental parts;* after this, the legs are held towards the tagger, which enables him to cut all that is necessary from the flanks and dock. Inasmuch as with the finer grades of sheep the wool is short, great pains is requited to cut very close; if this is done, there will be less waste in manufacturing, and no necessity for going over the same parts again at the time of shearing. As it is impossible for the wool to be perfectly dry at this time, it is my practice to spread it thinly over the floor of the wool loft, and every few days stir it with a fork.

It is difficult to say how much tag wool, in good faith to the manufacturer, and in accordance with strict honesty, should be taken off. From about 1,900 sheep, I obtain generally about 500 pounds; all the most filthy locks are of course excluded. I have had for a series of years, this description of wool manufactured; sometimes on shares, and again paying so much per yard for manufacturing. I have readily sold it to my work hands, paid mechanics bills, and exchanged with merchants for other goods. Having worn the article, I can testify to its being equal in strength to any purchased from the stores; but the great majority of farmers have yet to learn that it is a matter of economy as well as interest, to tag their sheep well, and use the wool for family purposes.

Having said all that I deem necessary on this branch of my subject, I proceed to the other, namely, *washing of sheep;* and I implore the spirit of equanimity and complacency of Mr. Pickwick, to preside over my nerves, while dwelling upon it. But on reflection, with a view to avoid all temptation to any explosion of indignation, I will not detail the scandalous, nay more, fraudulent manner, which usually attends this operation, with the great majority of farmers, and proceed at once to lay before your readers my own mode, and the evidence, that *honesty* and *interest*, in this matter, are more nearly connected than is generally supposed.

At the eastward, it is common with many of the wool growers to make use of vats for washing their sheep. This mode I have adopted. The size of mine is ten feet in length, six feet in breadth, and about four in depth. It is made of two inch pine plank, well secured at each end by gripes, which are of oak timber. About the sides are temporary platforms for the washers to stand upon when washing, and the water is conducted into it by means of board troughs; the fall from which is about 2 feet. Having two troughs or spouts, the washing of two sheep can be carried on at the same time; during which, two others are put into the vat for the purpose of soaking. The object of this is to loosen the dirt; for, by so doing, it more readily separates from the wool. The other advantages of this mode are these: a man can stand *beside* a vat—for it is wholly unnecessary for him to get into it—and wash all day, whereas, if he is up to his waist in a pool, an hour is about as long as he can endure the cold; the water falling the distance above mentioned, removes the dirt much sooner than by squeezing; the water in a vat is all the while pure, in a pool it is always rily; two active men, with one other to hand sheep, will wash 400 in a day.

There are few streams but that afford a needful supply of water, and also a sufficient fall. Where the latter is not the case, it is only necessary to excavate a place on the margin of the stream sufficient for the admission of the vat and platforms; for a fall is of the greatest consequence, as without it, it is impossible to gain the full advantage to be derived from vats; in fact, it is out of the question to make wool white and clean by squeezing, unless a much longer time is taken than usual, and after the greatest pains, its whiteness is dingy.

The cost of my vat, including all its appendages, was not quite nine dollars. Now, I will recommend, if so small an expense deters any individual from being sole proprietor of one, that farmers club in neighborhoods, fix on some eligible site, and own it in common. My neighbors have for years past, brought their flocks to my place for washing. I charge them nothing, nay, they are cordially welcome, for I am very happy in being instrumental in putting them in the way of doing the *clean thing*.

I have uniformly endeavored to put my wool intended for market, in the best order with particular reference to *cleanliness*, although some have had the knavery and impudence to laugh at me for so doing; saying at the time, "that the fleeces would weigh heavier if they were not *quite* so clean, and that the dirt would bring as much as the wool." Out upon such rascality to cheat the manufacturer. But query—How many are there who have not the boldness to say any thing *aloud* in approbation of this vile practice, yet *do it* from year to year!! As well might we sell chess for wheat, as fill our fleeces with stones.

Some of us are honest from *interest*, and with others "it comes by *nature*." Well, it is quite immaterial from which of these sources I am influenced; suffice it to say, I endeavor to keep at least one eye on that sterling old proverb—namely, "honesty is the best policy;" and its good fruits, I will now furnish you the evidence that I have reaped.

My wool has been purchased by the Messrs. Lawrence of Boston, for the Middlesex Company, for a number of years past, and such is my implicit confidence in their integrity—and very happy am I to say, that I have not yet discovered that it is misplaced—that it has been usual for me to forward it to them, and allow them to fix the value, which, in all cases, has been equal to the highest market price. I will here insert extracts from two of their letters, in reference to the condition of two of my clips, and could furnish similar extracts from half a dozen more. "In fixing prices, we have allowed you five cents per lb. more than we have paid others for similar qualities, for the *reason that yours was in much better condition than is usual.*" And again, in regard to another clip. "Our sorts will turn out from two to three cents per lb. *less* than we have allowed for yours, on purchases of over 300,000 lbs., but *the condition of yours is very good.*" The gain, on the quantity forwarded, which the first extract refers, amounted to over two hundred dollars, and on the second, about one hundred and fifty. "Who would not act the part of an honest man when paid for it so handsomey?" *some* of your readers will doubtless say. All I shall say to such, is just this: the Messrs. Lawrence will be very happy to make you honest on the same terms and conditions. Try it. It is the only species of *bribery* of which I approve, for it leads to virtuous acts; *other* kinds tend to corruption.

But, I have made an assertion at the beginning of this essay, in regard to our *preparation of wool for market*, which I have said would be proved to be true, by an unquestionable witness. I proceed to do it, although I have some compunctions on the score of good taste, as the testimony is embraced in a letter which has already been published, some three years since, in the old Genesee Farmer, with some comments by myself. Your present list of readers, probably varying essentially from that time, as well as the importance of the subject, constitute my apology for introducing it a second time to the public. The information it affords will be new to many, I doubt not. I shall omit the letter I addressed to Mr. Lawrence, and only insert here, the queries. I will further state, that the distinguished gentleman is at the head of that mammoth woolen manufacturing establishment, the Middlesex Company, located at Lowell, Massachusetts, which has the capacity to manufacture six hundred thousand pounds of wool per annum, and is now working up at the rate of 2,000 lbs. per day.

The queries addressed to Mr. Lawrence, are as follows:

1st. Of the average of American wool, washed in the usual way, what per centage is lost by cleansing or scouring?

2d. Is German or Saxon wool better washed, and the general condition better than American wool? Please state the condition of Spanish wool also.

3d. Do the German wool-growers secure their fleeces with twine, or by twisting a band of wool? And which mode is most acceptable to the manufacturer?

4th. Is it not very common to find *inside* of fleeces, shorn in this country, dung locks and trash of all descriptions, entirely useless to the manufacturer? Of, say 100 pounds, what per centage is lost by purchasing, *unknowingly*, wool having this trash with it? Please state some of the most glaring instances of frauds which have come to your personal knowledge in this way.

5th. Are you not, in your purchases of wool, very much influenced, in fixing prices, by its condition—whether well washed or badly washed—if so, would not the difference you allow, amply compensate, and more, the farmer for the extra time required in washing his wool well?

6th. Will protection, or sheltering of sheep improve the quality of the fleece?

Boston, May 1, 1838.

Dear Sir—Absence from home a number of weeks, is my apology for so long a delay in replying to your highly esteemed favor of the 28th March.

In reply to your queries, I have to say—

1st. The average loss by scouring American wool is 34¼ per cent.

2d. The average by same process on German wool is 24 per cent. Some of the best clips in Saxony will not shrink over 16 per cent, but the wool is accommodated, (technically called)—that is, the skirts and head of the fleeces taken off. Spanish wools are scoured with soap after being shorn; as we take them, they shrink about 10 per cent. The wools from New South Wales are of the Saxon family, the stock having been carried from Germany; they yield about 70 per cent of clean wool.

3d. The wools from the most celebrated flocks in Germany are packed in bales weighing about 400 lbs. each—the fleeces never done up singly, but spread flat against each other—there is no twine about them. This mode cannot be adopted in this country for a long time, till which, let the fleeces be secured by a gentle twist of the tail—if your neighbors cannot make it out to their minds, let me refer them to my excellent friends, H. D. Grove or Daniel Rogers, of Hoosick, who will relieve them at once.

4th. The practice of enclosing in the fleece, clippings, &c., is too common, and should be discouraged by manufacturers. I have known six ounces of this useless stuff taken from one fleece. There is another practice equally disgraceful—the use of five to twenty times as much twine as is necessary. A short time since, I took sixty-six feet of large twine from one fleece.

5th. These cheating practices are short sighted, inasmuch as the "clean thing" brings a price proportionate. We always fix the price per pound by the quantity of scoured wool it will yield—in our purchases we frequently make a difference of five cents per pound in precisely similar qualities. By adopting this system, the loss on our purchases is less, probably, than of some other manufacturers. For the last three years the loss in our stapling room on American wool has been 1½ per cent; this includes clippings, twine, dirt, &c.

6th. I believe protection in winter is essential to the production of fine wool, especially in this hard climate. My acquaintance with wool-growers in this country is very extensive, and I do not know a single instance of *fine* wool being produced without sheltering the sheep. Besides the quality of the wool, there are many other considerations why sheep should be sheltered; and first, *humanity*—then *the saving of life* of old and young—*avoiding diseases* of all kinds, &c. &c. too numerous to mention.

The art of growing wool in this country is becoming better understood yearly, and I believe the time is not distant, when we can afford to produce wool at about European prices.

Your ob't serv't and friend, S. Lawrence.

Do not the above facts, Messrs. Editors, bear me out most fully and conclusively? It seems that the Spanish wool is first in point of cleanliness, next the Saxon or German, then Australian, or New South Wales, and last of all *American!* But let us inquire, where is New South Wales? Why it is a British colonial settlement on the vast island of New Holland, where also is Botany Bay, the place where England's culprits are banished to expiate their crimes; and yet in that land of villains and scape-goats, it seems that, in cleansing their wool, they are more honest than we, by *four and a half per cent!* Oh shame, where is thy blush!! Yours truly,

L. A. MORRELL.

Lansing, Tompkins Co. N. Y. Feb. 22, 1841.

Letters from the West—No. 5.

The Common Stock of Ohio.

Messrs. Editors—I shall suspend any further notices of thorough-bred stock in this vicinity, till the fine settled weather of spring, when I can look over it with more leisure than I have at present at my disposal; in the mean while, having seen most of the specimens of crosses and common animals that exist here, I will now subjoin a few remarks in regard to them.

Of the horses, considering the vast number that are bred in this great and fertile region, I consider Ohio in comparison with our more Northern States, as particularly unfortunate; and I am told the farther south and west we look, the worse it grows, it being almost impossible to find there the real sterling utilitarian, *the horse of all work*—I mean such an animal as on a dry and tolerably level road, will carry one with ease on the saddle, at the rate of seven or eight miles an hour, for hours in succession, without fatigue, or that will go the same pace in a light wagon with wife and daughter by our side, and then changing to farm work, plowing with his mate on the average, two and a half acres per day, &c. &c., day in and day out, and keep fat upon it. The best animals that I see here, have been brought from the north, or are bred directly from northern stock; they are of pretty good size, fair goers, and tolerably enduring; then there is the great Dutch wagon horse, strong at a pull, but without action, and so terrible slow in his movements as to really exhaust one's patience in riding or driving him; and lastly, there is the light Virginia racer, thorough-bred or nearly so, a pretty horse enough under the saddle on dry roads, but totally unable to carry weight without soon tiring out on a muddy track. They have endeavored to remedy the defects of these two last, by crossing with each other; and a more worthless spawn, as a general rule, I think I never saw. They are big in the head, with long necks, large backs and legs, flat spongy feet, narrow chests, high sharp withers, light carcasses, and cat hams. Their tempers are as vicious as a mule's, and their gait neither a trot, pace, or gallop, indeed, I am at a total loss under what name to classify it, unless we call it a cow-heel shuffle.

Having occasion to ride out into the country the first day of my arrival here, one of these choice nondescripts was brought up for me as an especial favor; and I must confess as I took a sharp cast over his extraordinary figure before mounting, I could not but give my head an ominous shake, and query in my own mind whether I had not better make use of my own feet rather than those of the ungainly quadruped before me. The hostler seemed to half divine my thoughts by my looks, and answered them by saying, that "the hoss was a tall 'un for comfort, and a screamer to go; and if the gentleman won't *afraid* of his being a little curos when he passed things, he did'nt know nothin' about, he'd carry him mighty well." I must confess I was a little stirred up at the emphatic word "*afraid*," and not understanding the precise meaning of the words "comfort, screamer and curos," in the hostler's lingo, and having in my day been accustomed to mount pretty much all sorts of cattle, from the slow elephantine cart horse, up to the mettlesome thorough-bred, I instantly straddled the "tall 'un" before me. The third step he took was a stumble, that brought him down sprawling upon his knees, and would have sent me a clear somerset over *his head*, on to my *own* pericranium, had I not taken a stiff brace in the stirrups before starting, and held a powerful grip with my left hand on the reins. As it was, I recovered my steed, and kept my seat, and saved myself a bump on the head from the hard pavements, that is yet unknown in the vocabulary of phrenologists, and a pretty *debut* really, in the midst of the high street of a populous town, would it have been to make for one who has so much talk upon cattle as myself! The details of that ride would alone fill my letter sheet, and it is probably quite enough for me to say here, that the "comfort" was such a shaking of bones and flesh as I never before experienced, either by land or by sea; that the "go," with lathering, puffing and blowing, was about five miles an hour; and the "curos" part, was an almost total refusal to pass a bridge, ford or creek, or consisted in ramping and viciously shying to the imminent danger of dismounting a careless rider at any odd object, such as a stump, a dead log, the flash of a bird, &c. &c. in the road. Indeed, it was here only that he displayed any spirit, for which, as I had got on the look out for his tricks, he had my thanks, thus breaking the otherwise tiresome monotony of my first equestrian essay in the west, and confirming a sort of previous suspicion that I had entertained of the merits of a cross between a light mettlesome ra-

ter, and a great lathy, parous-boned and flabby-fleshed dray animal. As a general rule, I will freely say, that I find but two distinctive qualities in them, and these are viciousness, and a total want of adaptation to either saddle or harness. I trust that I shall be excused the freedom of my remarks on this subject, for I am only reiterating what every breeder of horses here frankly confesses; and as a finer region does not exist than the uplands and rolling country of the west for the production of these noble animals, I do most heartily desire to see people, when disposed to raise horses at all, grow good ones. The services of well bred northern trotting stallions, with handsome figures, fine action, great endurance and strength, with good size and quiet temper, may be secured at ten dollars per mare; and with just this additional outlay to the stock grower, he can produce a good animal from fair common mares, at a cheaper rate than the miserable dull or vicious unenduring brutes that are but a curse to the country.

Of horned stock here, the common kinds are, as is too frequently the case at home, ring streaked, speckled and gray, with black, dun, yellow and bay, their quarters consisting in a big wiry tail, and a sharp crowning rump, that will take on fat with the same avidity as Pharaoh's lean kine did of old, and probably make about the same return for their keep, but I am happy to qualify this flattering observation, by adding that I frequently see scattered over the country a touch of the beautiful Devon and large Hereford cross of New England, together with a fair mixture of Galloways, Dutch, Muley, &c. &c., fair animals enough, but no larger or better of their age, than with us. But the moment you throw in a Durham cross, the milder climate and consequent longer run at grass, begins to tell, and two year olds of this description, will be as large as northern three year olds of the same blood, and at three and a half and four years the cows fully mature, and are as large as good sized oxen, with deep full fat quarters, wide loins and expanded udders. Why will our farmers be so slow in adopting improvements, and keep on toiling for grain and grass, to then almost literally throw it away, on a breed of animals that will give them but half the return in beef and milk for their products, that a better race would. They can now buy Herd Book Durham bulls at a reasonable price, and good grade ones from ¾ up to 31-32, from $50 up to $150, according to age and quality, and I ask again if they cannot afford a *full* bred, why then take a *high* bred for a commencement.

The sheep that I see here, are superb of all kinds, common or what not They get a full belly, and show their keep most advantageously. One would naturally think most of the land too rich and level for them, but such does not seem to be the case; and I believe as a general rule, they are healthier here than with us, and certainly all kinds grow larger and look finer, I mean with ordinary farm keep. I have seen Saxons, Merinos, South Downs, Leicesters, and so on through the whole list, with all sorts of crossings, and all look well, but farmers are rather careless about preparing their wool for market, and do not consequently get as high price for it as they otherwise might; and as to mutton they do not seem to think much of it for the table, and prefer pork. Now this is all wrong, for it is a much healthier meat, and to my taste, much more palatable—indeed I may say, that I am a sort of a Jew on the article of pork; and though I breed pigs, I scarce ever eat of them, so that here is a confession prefaced by a recommendation, that as I do not own a sheep's head, people will allow me to be disinterested in making.

Swine are pretty much all the go and thought of here, and abound of every name and nature, from my very particular and amiable friends, Messrs. Alligator and Landpike, up to the quiet gentlemanly Chinese, and lordly aristocratic Berkshire; the former however, being the most numerous, may be said to be the Democracy of the country, and no offence meant in the use of the term to the thin skinned demagogues, who have such an ardent love for the people—that is of themselves, place and power. Between these, there is a middle rank, of which the Byfield, Leicester, Woburn and Irish Grazier crosses predominate; making quite a fair class of animals, the Byfield being the best. I have also seen some of the Russia bred, a pretty good hog of medium size and prick ears. His skin is thick, with bluish spots on it, hair thin, but very coarse and of a white color. He is said to be a quick feeder, but I should think if what I saw are the genuine thing, the meat must be coarse grained, and somewhat inclined to toughness. Yet of all this, I wish to speak under correction.

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Manner of Feeding Stock in Ohio.

Of the manner of feeding stock here, I do think too exclusive use is made of raw corn. It is one of the best of grains undoubtedly to finish off a fatting lot of stock, but to keep them along in store order it lacks *bulk*, and is too stimulating. Machines have been in use here to break up the corn, cob and all, into meal, but they have proved so defective as to rather prejudice the farmers against them. I suppose that they lack strength in many of their parts, and are also somewhat too complex in their construction. If some of the eastern machinists would turn their attention to this subject, and make a machine that is both strong and simple, and of a reasonable price, he could not but soon gain a fortune here, in vending them; the demand in this immense fertile region of the southwest, would be almost unlimited. They are also greatly in want of a strong, powerful machine to cut up corn, stalks and all, something upon the principle of a hay cutter, but the demand for these would be much less than for the former.

I wish that I could see a chemical analysis of corn cobs. I do not suppose that there is much nutriment in them, neither is there in straw, but all who have tried meal composed of the cob and the grain, agree that except for the last stage of the fatting process, it goes quite as far, and makes as much flesh, as the corn alone; of this I have not the slightest doubt, provided it is mixed up with a sufficiency of water, and allowed to slightly ferment before feeding; and as a corroboration of this opinion, I will here give the details of a little experiment that I made at home in Buffalo last summer.

I had twenty-two Berkshire swine in a small pasture during the month of August, where the herbage was so completely dried up as to give them no feed from it. I accordingly ordered them four bushels of raw corn per day, but this did not seem to satisfy them, and they were roving about the pasture uneasy, and as I soon found, losing flesh. I then took three bushels of ship stuff, (which is the best quality of bran from our flouring mills) and divided it equally into two barrels, and then filled them up with water. In about 24 hours this swill would commence fermenting; and every day about 1 o'clock P. M. the hogs were called up and the whole placed in troughs as fast as they would eat, and they scarce ever could entirely finish the whole two barrels of the mixture. They then seemed fully satisfied, and would go and lie down perfectly contented. A bushel of raw corn however, was scattered over the grass just to amuse them in cracking it the next morning for breakfast. On this food the lot gained gradually, and in a fortnight from being rather thin, were in as good condition as I ever wish to have breeders. They were all sows, young and old, weighing from 120 to 400 pounds, would probably have averaged about 250 pounds. The cost of the feed may be thus stated: 4 bushels of corn per day, on which the stock was growing poor, at 45c. $1.80; 3 bushels ship stuffs, 10c. 30; 1 bushel corn, 45c., extra time mixing up the swill with water and feeding, 25c. $1.00. Making a saving of 80 per cent, and that it would be equally great if not greater, with corn cob meal thus mixed up, and especially boiled, I have not the least doubt. Corn alone gives too much *fat inside*, without a corresponding *bulk* of flesh outside, which seems to be the most necessary material for good breeding. What would a man think to be fed on pork alone? Would he not daily crave bread and vegetables? Indeed, it is doubtful to my mind, whether he would not sicken and die under such a regimen.

Root crops ought to be grown here more than they are. Land that will yield 50 bushels of corn to the acre, would turn out at least 300 bushels of potatoes, or 600 of beets, carrots, parsneps or ruta baga, and the expense of raising and securing these last, cannot be greater than that of the first, and four bushels of the one, would certainly be equivalent to one bushel, with the stalk fodder that accompanies it of the other.

Feb. 1841. A. B. A.

Comparative Value of Horses, Mules & Oxen.

Messrs. Gaylord & Tucker—An apology is due to the N. Y. State Agricultural Society, for omitting to report on the subject they have twice assigned to me, but it having been inconvenient to attend the annual meeting when the appointments were made, they were not sufficiently impressed on my mind to draw my attention to the subject in time for their meeting the present month. Indeed, in consequence of the press of other matters, it was not till now, that it occurred to me that this duty was to be performed. So far, however, as their object is the publication of the different reports, it may be accomplished by the insertion of this communication, but with this serious abatement to its usefulness, that it cannot receive that revision and sanction of the intelligent members of the board, that would so materially add to its correctness and authority.

The comparative value of horses and oxen for agricultural purposes, has so often been the subject of discussion, and the arguments so very correctly and succinctly stated in your own paper so lately as March last, that it would hardly seem necessary to repeat them here. But there are some considerations connected with this subject, not hitherto treated of to much extent, that I will submit to the public, for the purpose of eliciting hereafter, such observation and discussion as may lead to highly important results.

In a country so varied as ours in climate, soil, surface, tillage, crops, extent of farms, &c. &c., there must necessarily be sufficient difference in circumstances, to justify the use of both horses and oxen, not only in contiguous, but even on the same premises. This assertion will appear conclusive, by simply stating the universally acknowledged merits of each. These are summarily stated by assigning such labor to the horse, as is required to much extent during the hot season, where active movements are wanted, and when a load is to be removed a considerable distance over a good rond. This seems to be the extent of superiority claimed for the "noble beast." The claims of his more humble, but on the whole, much more useful competitor, are the smaller amount required to purchase them, the economy and simplicity of tackle, the easiness and cheapness of keep, less liability to disease, docility in managing, constant improvement till they have attained a full growth, and their ultimate value when they have outlived their working character. These are the generally distinguishing characteristics between the two races; though it not unfrequently happens that individuals of each approach and even cross the line of demarcation, the horse sometimes falling below the average standard of ox endurance and speed, while the latter if truly bred and properly trained, boldly pushes his way into the foremost ranks of his prouder rival. That a great improvement may result from a strict observation of the capabilities and requirements of each, there cannot be a doubt. Let us see the position they respectively occupy at the present time. The horses in this and the northern States generally are very well adapted to the services they have to perform. If we except the French horse, as he is called, (deriving his name probably, from his having been almost entirely used by the French Canadians,) which is a cross of a very good European horse on the Indian poney; and is in deservedly high repute as a hardy, serviceable animal, and is very extensively used along the State's side of the Canada lines, we have no well defined or distinctive breeds of horses, but they are a mixed race, made up from good stallions imported from time to time, on our former stock of mares; and in New York and New Jersey especially, there has been a high cross from the very choicest imported bloods, and to such extent has this been carried, that in many sections of these States, and several of the others, it will be almost impossible to find a native animal now, that is not deeply in the best blood. By choicest, it should not be understood, the *dandy* racers of their day, that will run against a streak of lightning provided they have little weight to carry, but the strong, serviceable, enduring animal, whose progeny is as well suited to the road and plow, as their sires were to the turf. Some of which were Post Boy, Messenger, Membrino, Duroc, Eclipse and Bellfounder, whose descendants may be found pretty extensively distributed over the north, and constitute an invaluable improvement to the former respectable stock. This improvement, if universal, would probably be all that would be requisite in horse flesh. But there still remain a great number not tempered by noble blood, with ungainly heads, long sway backs, rough haired, coarse jointed brutes, whose bones scarcely possess more strength or density than a corn cob; and with muscles more resembling a tanned sheep skin, than the wiry sinews of the well bred beast, and if these could be at once spayed and castrated, we should secure a double benefit, in breeding fewer horses and those of the best kind.

The question has been much mooted of late in Kentucky and elsewhere at the South, (where they have in this extensive section, but two kinds of horses, one good for racing, and the other good for nothing,) as to the kind of animal required to improve their agricultural horses, and wisely discarding the notion of importing some of the old varieties of Europe that were formerly held in considerable repute, such as the Suffolk Punch, the Cleveland Bay, the Black cart horse, and others that have much degenerated of late, whether positively or relatively, I cannot say, others having been vastly improved by the infusion of better blood; and they have with much good sense ordered some of the best stallions from Long Island and elsewhere, from the stock we so largely possess, and from them they will soon acquire a valuable race. We of the north, require no importation to secure for us better horses than can be found in the world for our purposes. We have only to select judiciously with more show, or substance, according to the fancy of breeders; and from these we can produce all that is required.

But we object to the number of horses kept among us. They are *too expensive a luxury*. Food enough is consumed by the *surplus* horses in this country and England, to make every individual in them both, entirely comfortable. From the earliest days after the flood to the present time, they have been a prominent object of pride, as well as engine of conquest, plunder and devastation, by every tyrant and robber from Nimrod to Napoleon. We cannot wonder then, they were so emphatically interdicted to the Israelitish shepherds, by the express command of Jehovah himself, for how could the narrow valleys of their limited Canaan, have contented them, or supplied half their swarming population with food, had they possessed the proportion of horses we think essential to our necessities? And no sooner did Solomon commence his career of glory and conquest, accompanied by the introduction of an extensive royal stud, imitated no doubt by the nobles and grandees of the land, than the nation passed under an intolerable oppression, that resulted in the revolt of ten twelfths of the people, and soon after, in the subjugation and captivity of all.

We have no hesitation in venturing the assertion, that were our present stock of horses reduced *to one fourth their present number, and the places of another fourth supplied by mules, and each put to their required duties, the remaining labor of the country would be vastly more advantageously performed by oxen.* But first of *mules*.

It would appear on even a very slight reflection, that in excluding the services of this humble, but hardy and useful animal, we are annually sustaining an immense loss. Probably it would not be overstating the case, to say that with little grooming, half the attention and feed, and no disease, they will outlive the laboring lives of horses, and do the whole work of each. But that there is great disparity in favor of the former, in the amount of labor rendered for the quantity of expense bestowed on each, those who have tested both are prompt to testify. They are the only beast of labor that can be trusted by their masters in the hands of the slaves at the South, their hardiness enabling them to live under a usage that would kill horses almost as fast as harnessed. They are easily and cheaply reared, strong for their weight, hardy, require little attention, subsisting on the coarsest herbage, almost free from disease, and live to a great age in the full possession of vigor and strength, many being found capable of their accustomed labor at 35 and 40 years old, and some authentically stated to have attained ages apparently almost incredible. Why then, under these manifest and acknowledged advantages, are they not generally used? The whole objections, after deducting a little for *family viciousness*, may be summed up in one word—*pride*. Unfortunately for us, those we have been accustomed to see, have had more than a due proportion of thick muzzle, chunk head, long ears, ewe neck, narrow chest, diminutive legs, small body, cat hams, and most unprepossessing tails, the result of breeding an indifferent jack to the refuse mares of the country. But in a question of utility we must school our ideas somewhat, and if we cannot quite bring up the mule to the symmetrical elegance and fiery spirit of the horse, we can bring them down to think him not only not so unsightly an object, but a very valuable and useful beast. He has, to be sure, in days of yore, and among nations we deem less tasteful and refined than ourselves, been esteemed not only as a beast of burthen, but considered with regard among the luxurious, the opulent and the proud: and kings, princes, and nobles, from Absalom, (the most courtly dandy, and thorough-going demagogue on record, that has as far distanced his competitors in the race of folly, as his brother Solomon has all modern philosophers in wisdom,) to the haughty sovereigns, Ferdinand and Isabella, that stand uneclipsed in later times in the acquisition of territory, wealth and glory they made for their country, the mule has received all that brute regard and fondness we bestow upon the horse. Nor should their taste be too summarily questioned. We have seen specimens of this hybrid, with proportions so happily blended as to challenge not simply our approval, but our high admiration, standing 16 hands, symmetrical, (for a mule,) firm jointed, clean limbed, compact, round barrel, arched neck, and a costume varying, through every shade, from a light roan to a jet black, and which reflected like a mirror, the light from their polished sides, constituting a together a lofty bearing, that would effectually silence the pretensions of half the legitimate bloods of the land. Such animals could not be purchased for $500 per pair, a price not fixed from fancy, but from actual experience, believed to be within their absolute value. Let the experiment at once be tried, by using some of the best Kentucky Jacks on our large blood mares, and a salutary change will soon be effected in our northern teams.

But for moderate farms generally, we think the ox, beyond comparison, the most profitable animal to depend upon for field labor. He is the natural and almost spontaneous production from an indispensable portion of every man's stock. He comes almost unbidden to our hands, and is reared with little trouble or attention on the coarser products of the farm; is liable to few diseases, which are generally understood and easily remedied; is domestic, kindly disposed, tractable, patient, and ever ready to do his utmost; and when he has worked through his best years, and attained to a full maturity, he is turned into the field to gather up and condense the scattered herbage, and then is prepared to fill up the measure of his usefulness, by uncomplainingly yielding up his life to the stern and never satiated demands of his master. If at any time in the course of his working days, he becomes disabled, he is turned out and fattened, or if kept in good condition, is always ready for the shambles. Some years since, I had an ox, that through the carelessness of his driver, had a part of a hoof crushed, by having a log rolled on it, and finding it impossible to stanch the wound, I had him butchered, and dis-

posed of his carcass for $62, when the well matched pair were not worth more than $100, for working oxen. Not so with the horse; if the slighest fracture or disease is discovered, down comes his value from 20 to 80 per cent, or if much disabled or seriously diseased, he becomes absolutely worthless, or even worse, as the expense of keep and farrier's bill, is the only legacy bequeathed by the dead brute after months of attention.

But to the objections to an ox team, "They cannot endure like the horse in hot weather." Grant it. There is a part of 4 months in our climate, when they cannot do as much in the heat of the day, but there are parts of every day they can do a great deal; and probably all that might be required of them; and if the sluggards who drive them, would take a lesson from the feathered inmates of every copse, tree and shrub that surrounds them, and bestir themselves before the fading glimmer of the last star in the morning, and unyoke and provide for their weary companions in toil through the sultriness of the day, and again when the excessive fervor of the sun had abated, they would renew their labor till dewey eve admonished them it was time to rest, they would find probably they could accomplish, without excessive fatigue to their teams, all that was necessary to perform.

The great objection to them, however, is their "dullness and inactivity." Is the quadruped or biped in fault? We believe, with all due deference to our own species, the latter. If the poor dumb brute could portray his wrongs, they would frequently be found to shame his more intelligent master; and if even handed justice could be done, compel him to change places with his abused servant. The ox is generally trained before he has acquired half his strength, and his power at once tasked to the utmost. If however, he is allowed a respite, his burdens are for a brief time only delayed, and long before his strength is fully matured, he is habitually overloaded, and that too under every privation of nutritious and stimulating food; and the consequence is, as every one, not an ox or ass, would have predicted, he loses his spirit and ambition, and becomes the stupid thing we are so accustomed to see, and the whole race are condemned for faults that really belong to another. Let light yokes or harness be adopted, suitable four wheeled wagons, instead of the neck bruising carts, that are too often a full load for a team when empty; let the ox be well fed and curried and kept in his yoke only a reasonable time, and *never overtasked*, and he will in his improved character, soon retort upon his calumniators. *But the real difficulty is, the breed of working cattle need improving throughout the State.* In how large a portion of it are they far below the standard of working cattle in New-England? Is this owing to the mode of rearing, or the breed? We think the latter. All know the difference in the capacity for performance between horses of the same bulk; that one will regularly perform labor throughout the year, that would knock up another of the same weight in a week, and kill him in a month. May there not exist the same difference in the breeds of cattle? Without hesitation we would answer yes, though not perhaps to the same extent. We are not left to conjecture upon this point, however, though our unassisted reason might clearly indicate the truth; for we have the recorded experience of intelligent and observing men, on both sides of the Atlantic, who have tried this matter fully and fairly, and whose united testimony is, that not only are certain individuals better adapted to various purposes of labor, but whose breeds are so constituted in form and character, as to give them the utmost possible adaptation to this object, consistent with the other important one of their nature, in furnishing subsequently a carcass every way suited to the nutrition of man. These breeds are pre-eminently the Devons and Herefords, and to their unrivalled qualities for draft, Loudon, Youatt, and other distinguished writers testify; and their opinions are corroborated by thousands of experienced individuals in our own country. We know the Devons to be intelligent, docile, spirited and capable, quick in their movements and enduring in performance, and in many instances, when of pure blood, well trained, and properly managed, rendering it no easy matter for good horses to out-do them. Youatt yields to the Herefords nearly the same meed of praise, and allows them greater strength, though we think them less active. Classifying them by the sportsman's scale, we should say the Devons were the thor ugh bred, and the Hereford the stouter hunter, and though not possessing the speed, yet with sufficient for his object, he is enabled to carry greater weight than his more active rival. Both have good forms and constitutions, a large share of Bovine intelligence, a quick eye and ready ear, dense bones, strong joints, a large proportion of well disposed muscle, great strength and a rapid stride that makes it no easy matter for their drivers to keep pace with them; in addition to which, they are kind feeders, and when turned out to grass, will take on flesh rapidly, and when fattened are preferred and will (in England at any rate, where the different breeds have been gauged by all the epicurean palates that have taken cognizance of flesh for the last two or three centuries,) bring a higher price than any except the Scotch cattle. Did we possess these valuable cattle, and their descendants crossed with our best natives, extensively disseminated through our State, we should hear very little about the great inferiority of cattle.

It may perhaps be asked if the far famed Short Horns are not adapted to labor? If so, their advocates have failed to demonstrate it, with some few exceptions; nor do we deem it compatible with their characters they should ever be so distinguished. There is an anatomical and physical impossibility in the thing. They must combine opposite and irreconcilable properties in accomplishing this. Their great and paramount excellence is, to load on flesh in the right points at an early age, combined with great capacity in the cows for secreting milk, in which they are excelled by no other breed except the Long Horned Durham or Yorkshire. In conclusion, for this article has already been drawn out to an unwarrantable length, all that is necessary in compassing the great desideratum, the *improvement* of our country cattle, is to select the choicest native animals we have already, that are best adapted to this purpose, and cross them with Devons, and perhaps Herefords, selected in England especially for this object, and we shall soon have a race not surpassed for securing to the agriculturist what he most demands, viz. *the accomplishment of the greatest amount of farm labor at the least expense.*

Truly yours, R. L. ALLEN

Buffalo, Feb. 1841.

Preserve leached and unleached ashes which have accumulated during the winter, to be applied to corn *in the hill*

The Short Horns and Herefords.

MESSRS. EDITORS—It is with deep concern that I perceive by a communication in your March number that Mr. SOTHAM has lost some of that comity of feeling, with which he professed to enter into the discussion on the relative merits of the Short Horns and the Herefords; more especially that he has, without pausing to consider the pain and injury it would inflict, spoken in terms falling little short of utter disrespect of the breeding skill, and even the knowledge of what constitutes the valuable points of cattle, possessed by Mr. YOUATT, Hon. HENRY CLAY, Mr. HEPBURN, and lastly my humble self. No man, I will venture to say, intimately acquainted with Mr. SOTHAM, values him more highly than I do, and I have ever believed that he was by no means properly appreciated by a large portion of our breeders.

I well recollect with what profound pleasure I hailed Mr. SOTHAM'S communication from England, (published in your October number,) that he was on his way to this country "*with the best lot of stock ever seen together,*" and his modest challenge to the "owners of the best cattle in America," to meet him at the cattle show at Niblo's in October. It is an affair of more magnitude than every one may suppose, for *one man* to buy up "the best lot of stock ever seen," even in the small island of England, and I could not help fancying the deep mortification, the unavailing regrets of such men as Earl Spencer, Mr. Bates and other English breeders, when they ascertained the fact, and found that the broad Atlantic rolled between the aforesaid "lot" and England. What deep and lasting gratitude then should every American have felt towards so great a public benefactor! But, alas, all know that the "ingratitude of republics" has passed into an adage. The fair day arrived at Niblo's, and with it arrived Mr. Sotham with the Hereford cow (with the *aliases)* that "won the first prize at Oxford, 1839, against all England;" the cart mare and cart colt "allowed by the best judges to be as good as England could produce;" the twenty-four rams that "could not be beaten even in England;" and lastly, "the pigs of various descriptions, the best that could be procured in England." Mark the astounding sequel! The cow that "beat England," was beaten by an American bred Durham, though rumor says that Mr. Sotham actually condescended to wait personally on the committee, after they had retired to their room for consultation, for the generous purpose of imparting his superior knowledge of what constituted the true excellencies of cattle, and to inform them in what low estimation the cow that subsequently proved to be the winner, would be held in England! Whether any of the four and twenty rams, like the fiddlers of old "all in a row," received premiums, I am unable to say, though I learn that some of Mr. Sotham's sheep were beaten by Mr. CLIFT'S. And to show at what an utterly low ebb the taste of our country is, in such respects, I will state that I am credibly informed that those splendid *steeds*, as well as those pigs, whose loss it is feared England will never be able to repair, were actually *laughed at* by two-thirds of the ignorant and impudent Yankees present!

But enough of this. It only proves that men in advance of their age, are rarely appreciated by it. Galileo found it so; Copernicus found it so; Capt. Symmes found it so; and Mr. Wm. Henry Sotham, if he finds it so, should neither be grieved or disappointed. It is your empty, swaggering, conceited fellows, who always proclaim their own "best," who are most successful in these degenerate days; for the modest and unassuming there is little chance. The simple fact that the committee of the American Institute decided against Mr. Sotham's Herefords, proves nothing. That they were the "best lot of stock" at Niblo's, or that "were ever seen," we have the most indisputable authority—the same which the Marshal Montmorenci had that the Dauphin was a brave man—the Dauphin *told him so himself!* Will any man deny that this was

"Confirmation strong
"As proof of holy writ!"

But I must say I think it was hardly magnanimous in Mr. Sotham, after seducing Messrs. Clay, Hepburn, myself and others into this controversy by honied assurances of dealing gently and leniently by us, to suddenly, without a word of warning, convert a merely friendly passage of arms into deadly strife. It might have evinced considerable nerve on the part of Fitz James to say to a party of wild Gael, "come one, come all,"—but Mr. Sotham, when he says that he is willing to stand a brush with Messrs. Youatt, Clay, Hepburn, etc. "individually or collectively," well knows that he utters a safe challenge. True, Mr. Youatt is concededly the first writer in England on cattle; Mr. Clay is a clever man in the Senate, and one of the first breeders of the various kinds of improved cattle in the Western States; Mr. Hepburn certainly *writes* like an intelligent man—but which of these men ever "purchased five thousand cattle in two months," or belonged to a concern "which slaughtered from four to six thousand annually for four years?" If there be truth in the sage old apothegm that he

"Who kills fat cattle must himself be fat,"

does it not follow by a parity of reasoning that he who buys and slaughters cattle must be an adept in the science of breeding them? Cannot your butcher, who wields the knife and cleaver, manufacture these implements better than your mere blacksmith, who perhaps never cut up a beef in his life! We doubt whether this last process was ever performed by Mr. Youatt, unless in the way of dissection; and as for the Kentucky Senator, confess,

"'An thou lovest me Hal,"

that there's many a man within half a dozen miles of Ashland, who has bought more, killed more, barrelled more, and eat more beef than thyself, and *argal*, knows better how to breed it. The fierce old Hepburns, of East Lothian, were *drovers* and *butchers* both in a "border foray," but we doubt whether their peaceable Pennsylvania descendant has ever drove or slaughtered 5,000 cattle in his life. If not, what should he *presume* to know about breeding fine cattle!

By the way, we should like to know what was the "head and front" of this unfortunate man's "offending," that he should be selected as the especial victim of Mr. Sotham's ire—used up—as little of him left as of the famous Kilkenny cats. Was it for suggesting that the recently imported Herefords were indebted to a Short Horn cross for their improved points? Mr. Hepburn undoubtedly considered this the greatest compliment he could pay them! Mr. Sotham in the October number of the Cultivator, page 161, in enumerating "the best lot of stock ever seen together," says, "one half blood between the Hereford and Durham, to show the cross, which I think an excellent one, *probably better than the pure breed of either*, and from what I saw of Mr. Cother's stock of Middle Aston, it may be extended much further than generally supposed, for his fourth cross was equal to the first—not the least sign of degeneration." Can words be more explicit? And what did Mr. Hepburn do, but follow "in the footsteps of his illustrious predecessor?" Why, Mr. Sotham is as difficult to please (the best have their foibles) as the drunkard, who reeling home at midnight, declared "if he found his wife up, he would whip her for not going to bed when she ought to have done—if he found her abed, he would whip her for not sitting up and waiting for him." Disagree with Mr. Sotham, and you incur the fate of Clay and Youatt—agree with him, and the shade of the mangled Pennsylvanian rises warningly before you. Mr. Hepburn only surmised (in common with many others) that Mr. Sotham had been a more fortunate man than he himself supposed—that instead of mere Herefords, he had actually obtained that cross between the Herefords and the Durhams, which we have Mr. Sotham's own authority for supposing "better than the pure breed of either." Why should Mr Sotham object to having it believed that his cattle have received that last finishing touch, which by his own showing, will make perfection more perfect. Is it modesty, the fear of claiming for his own more than they deserve? Yet he *may* be mistaken *against himself*. He says of the cow that was beaten at Niblo's, "I defy any man to prove there is a drop of Durham blood in her veins." I presume there is not, but supposing there was, and a good many of them, who could testify to it except the breeder? I assert that my pig is a pure "landpike,"—now grant for the sake of the argument there are several drops of the "Alligator" in him—how is Mr. Hewer or Mr. Sotham to ascertain that fact, if I see fit to conceal it?

Finally, Mr. Sotham challenges Mr. Hepburn or myself to exhibit a pure Short Horn, against one of his pure Herefords, as a milking cow in May next, for a silver cup, value $15. Now did Mr. Sotham ever hear of a shrewd Yankee, by the name of Ezekiel Peabody, who having tried in vain to dispose of a horse for $40, rode him one bright morning, briskly into the town of C——, (where several sportsmen resided,) and offered to wager $15, that the aforesaid horse could out-run any thing in C—— for a mile; and how that finally he consented to sell "Connecticut Eclipse" to young 'squire W., for $150, before the race came off? *But would not Ezekiel have betrayed a great want of discretion, had he suffered his motive for making the bet to leak out in the presence of a third person, who was under no obligation to keep it from the other parties?* I will merely add that this "silver cup" challenge *came to my ears* long before it was openly made to me. *Verbum sap.*

In reply to that challenge, I may be permitted to say that I never have paraded my own stock before the public. I have discussed the merits of the Short Horns and Herefords as *families*, without converting my communications into advertisements setting forth the merits of *my own* animals, as the venders of patent medicines recount the wonderful virtues of their nostrums. My herd, always small, has been rendered still more so by recent sales, and circumstances have induced me to turn much of my attention to crosses between the Short Horn and other varieties.* But if Mr. Sotham is really in earnest—if he wishes to risk $50 or $100, on the milking properties of a pure Short Horn and a pure Hereford, by the proper tests, (say the actual admeasurement of milk—or rather the pounds of butter made during one week of each months from the time of calving to the time of exhibition)—the matter to be decided at the annual Fair of the State Agricultural Society—I hereby distinctly inform him *he shall be met.* Satisfactory *proof* to be had, of course, of the milk and butter produced by each cow; and the bet to be forfeited in case either party should "*sell out.*" If Mr. Sotham accepts this challenge, he will signify it in your next number, to enable the proper steps to be taken. HENRY S. RANDALL.

Cortland Village, March, 1841.

Ripening of the Brown Corn.

MESSRS. EDITORS—I noticed in the January number of the Cultivator, an inquiry by a "Subscriber," as to the time of ripening of the "Brown Corn." In answer to this inquiry, permit me to state briefly, my experience of last year. I planted my corn on the 16th day of May, and on the 22d day of August, I gathered good ripe seed corn from the field, wishing at that time to send some to a friend in the eastern country. From the appearance of the corn at that time, I presume I might have gathered good ripe seed a week earlier, had it been necessary. ANOTHER SUBSCRIBER.

Hartford County, Conn., Feb. 22, 1841.

Cure for Infected Kidneys in Hogs.

MESSRS. EDITORS—I see in the Cultivator, (p. 168, vol. 7,) that Mr. J. M. HUDSON, of Va., asks for information respecting a disease among hogs, which he denotes as infection of the kidneys, or weakness of the loins. I have had some acquaintance with this disease for many years, and suppose it to be the effect of kidney worms. I have often known copperas given to hogs with this disease, and never knew it fail to cure them in a few days, even after the hog was unable to get about but by dragging the hind legs. The copperas may be given to them in portions of about half a spoonful daily, in dough, or any thing else that they will eat. Pursue this course for a week or ten days, and a cure will be effected. A little wood ashes will do no harm, but it cannot be relied upon for a certain remedy.

Monroe, Ga., 1840. L. P.

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* Every one at all conversant with the subject, is aware that the thorough bred Short Horn, or any other animal of *equal size*, is not the proper stock for the hilly and thin soils of many of our grazing districts. The Devon, suitable in other respects, fail as milkers. A breed that should engraft to a considerable extent the milking and feeding properties of the Short Horns, or that capacity for short keep possessed by some of the smaller varieties, would certainly be a great desideratum—and towards this I have aimed. I have young cows now coming in, crosses between the Short Horn and the New Leicester, the Ayrshire, the Devon, the Holderness, and our native stock. Of these various crosses I may have occasion to speak hereafter. Though by no means "the best lot ever seen together," some of these animals are reckoned clever in these parts

Poultry House—(*Fig.* 41.)

Breeding and Management of Poultry.

While others write with nobler views,
Of *Cattle*, *Hogs*, and bleating *Ewes*,
Let humbler themes be mine;
"Bright *Chanticleer* proclaims the dawn,"
And wakes the sluggard in the morn,
Ducks, *Geese* and *Turkies* join.

I most cheerfully comply, Messrs. Editors, with your request, "to furnish you with a plan and description of a Poultry-House, yard and fixtures, together with my management, views," &c. &c. This I will do the more readily, as it may save the necessity of replying to some letters of inquiry on the subject. It is however, but a little over one year since I erected my poultry-house, and turned my attention to the subject; and it could not therefore be expected that my experience should be very extensive; but I have been enabled to discover some errors, which by making known, others may profit by the information.

On most farms very little attention is paid to the breeding or rearing of poultry; and but very indifferent accommodations for them, as the rearing of a greater number than can subsist by picking up waste grain, or what might escape the pigs and be lost, is considered by many as unprofitable; and any cold apartment, with ill-contrived places for nests, and dirty roosting places, is generally considered all that is necessary.

Poultry may be considered by some, as a very insignificant part of live stock on a farm, still they should not be altogether despised, for there are very few who do not like a fresh laid egg, or a fine *fat pullet*, and these are some of the *fine things* which happily can be had in great perfection by the farmer, with very little trouble or expense. Eggs, whether boiled or fried, raw or roasted, or made into custards, agree with most palates, and fried with ham, or made into omelets, form a repast within the reach of all, and to be despised by none.

On small farms, near villages or cities, the breeding and rearing of turkies, ducks and chickens, and in some situations the keeping of geese, is found profitable. I know of several in this vicinity, whose receipts for poultry and eggs, have not been the least item of their income.

In England there are exhibitions, and prizes awarded for the best poultry. At one of these exhibitions, a turkey was exhibited that weighed 20¼ lbs. One capon 7 lbs. 14 oz. One pullet 6 lbs. 13 oz.

The importation of eggs from Ireland in 1837, to Liverpool and Bristol alone, amounted in value to $250,000. The importation from France, the same year, was probably greater.

I noticed in the "Farmer's Magazine," published in London, that a very curious and highly interesting exhibition, especially to the physiologist, was opened in 1839, called the *Eccalcobion*, a contrivance for hatching eggs by artificial heat. It differs from the Egyptian method as well as those which were tried by De Reaumur in Paris, and Moubray in London. And now it remains for the ingenious Yankee to contrive an apparatus for producing fresh eggs when desired.

"Eggs," says Low, "are an extensive product of common poultry." Lawrence in his work on poultry, states that from five Poland hens he obtained in eleven months, 503 eggs, weighing at the average of one ounce and five drams each—50½ pounds.

Last year my hens commenced laying the 7th of February, and between that period and the 15th of August, we obtained 2,655 eggs from 60 hens; when the year previous, from 100 hens we did not get but a few over 1,000. This shows the importance of confining them so that the eggs can be readily obtained, and no time lost in "looking for hen's nests."

A friend of mine, who resides in a neighboring city, and keeps between thirty and forty hens, informed me, a few days since, that he had obtained eggs from his hens through the year; that is, there was not a single day in which he did not get some. This he accounted for as follows: he had one brood of very early chickens, and when the old ones ceased laying, for moulting, the pullets commenced; and in cold weather his yard is so completely protected by high buildings on the north and west, and receiving the full influence of the sun from the south.

A neighbor who erected a poultry-house last summer, and took the precaution to have it filled in with brick, says his hens never ceased, but continued to lay during the fall and winter, and that he obtained 37½ cents per dozen for the eggs.

Mr. Stimson, of Galway, connected, a few years since, the profitable business of rearing poultry to the useful purpose of protecting his garden from the depredations of those numerous tribes of insects which so frequently render abortive the best exertions of the gardener. His method is simply this: a sufficient number of coops are constructed and are placed in different parts of the garden, and the hens with their broods are put into one of these coops; the chickens finding no restraint upon their freedom, roam over the garden and devour every fly, bug or other insect which they may meet with. There is one objection, however, which I found to this, particularly if left too long in the garden, as they become so attached that it is difficult to keep them out when grown up. I would, therefore, recommend removing them to the poultry-yard as soon as they get in feather

Whether the fowls are suffered to go at large or are confined, there should be a poultry-yard where they may be regularly fed, and this should be on dry ground and plenty of gravel. There should also be water in the yard, and it should be sheltered from the north and west. There may be placed in the yard, under cover, dried sand and ashes that they may indulge the propensity, so natural to them, of rolling or basking.

In selecting a situation for a poultry-house and yard, I would advise by all means to place them on the south side of buildings, or the south or southeast side of a hill, so that one side of the wall may be set against the hill, and if of stone to be laid in mortar, which will add much to the warmth of the room. If the buildings are of wood they may be filled in with soft brick, tan or straw to the very top; brick is preferable, as it will harbor less vermin.

The figure at the head of this article, showing the elevation of rather an extensive and costly establishment, would not only be very convenient but add very much to embellish the premises. The cupolas on the tops are for the purpose of ventilation as well as ornament. On the bottom of the cupola and inside of the building is a door hung on hinges, with a cord and pulley attached, so that it may be closed or opened at pleasure. The gable ends may be turned to the south, in which dove-cots may be formed or they may be made in the roof as in the figure.

The buildings at the ends are intended for roosting apartments and laying and hatching. These buildings are to be thirteen feet square, and thirteen feet posts. I name this size as there would be no waste of timber, being just the length of the boards and joists. If not too near the dwelling-house, so that there could be no danger of fire from sparks, I would recommend to have the roof *thatched with straw*, as being much warmer in the winter and cooler in the summer; and when well done it forms a tight and durable roof, and will last for twenty years. It should, however, be made much more sloping in order to carry off the water more readily.

A round hole one foot in diameter, with a sliding door, should be made in each apartment for the birds to pass in and out, and to confine them when necessary.

There should be no floor to prevent the fowls from coming to the earth, and the litter should be often removed, and the bottom sprinkled with lime at least once in each week.

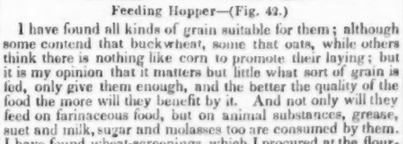
The roosts should commence at the top and slope downwards, at an angle of forty-five degrees, like a ladder, to the ground. The cross pieces or spars should be of sassafras of two inches in diameter with the bark on, which is said to be a protection from vermin. No flying is necessary in this form of a roost, as the birds ascend and descend by steps. The spars should be placed one foot apart horizontally for hens and eighteen inches for turkies, so that they may not incommode each other by their droppings. Ranges of boxes may be hung around the sides for nests. To gratify the hen's organ of secretiveness the apartment must not be too light, and the access to the nests so contrived that she may steal quietly there unobserved. The boxes should have doors or covers to them so that the eggs can be removed without difficulty.

In the hatching of poultry, as in most other things, Nature is the best guide. The hen and duck, if left to themselves, find some dry, warm, sandy hedge or bank, in which to deposit their eggs, forming their nests of moss, leaves or dry grass. In this way the warmth is retained when the bird leaves the nest for the moments she devotes to her scanty and hurried meal. The best mode is to put in the bottom of the nests a sufficient quantity of fine dry sand and grass, or moss, or cut straw. Wood ashes has been recommended by some, as they produce the effect of destroying vermin by which they are apt to be infested at that time; and that this will not be disagreeable to them, is evident from the propensity which they have to roll or wallow in heaps of dust or of ashes of any kind. As this is the season for the incubation of every species of domestic poultry, I have thought the above might be acceptable to those who are paying some attention to this subject.

The long building with windows in front, connecting the two extreme ones, is intended for exercise in the winter, being made warm by filling in with brick, &c. and thatching with straw. The front to be ten feet high, roof sloping to the north. The windows are intended to admit light and heat from the sun; or the windows may be omitted, and the front finished in the form of a shed. This apartment is well calculated for feeding and watering, as well as for the gravel, sand, ashes and lime. Boxes may also be placed there for laying and hatching. By partitioning it off, two varieties of fowls may be kept separate; or one side may be appropriated for turkies and guinea hens, and the other to the gallinaceous tribe. These should open into a yard of considerable size, as room and space is necessary for their health, when they are not permitted the range of the barn-yard. The yard should be dry and have a southern exposure. Ventilation, cleanliness and pure water are essential to the health of poultry, as well as all domestic animals.

The yard should be enclosed by a fence at least seven feet high, with long sharp pickets, and the timber on which the pickets are nailed, unless some distance below the tops, should be on the outside to prevent the fowls from perching on them, as they seldom fly over a fence without alighting.

It appears to me from my experience to be the best method to feed fowls an abundance of nourishing food. Experience tells us also, it is better to give animals of all descriptions a full allowance of food from their birth to their maturity, and the same rule applies to fowls as to animals.



Feeding Hopper—(Fig. 42.)

I have found all kinds of grain suitable for them; although some contend that buckwheat, some that oats, while others think there is nothing like corn to promote their laying; but it is my opinion that it matters but little what sort of grain is fed, only give them enough, and the better the quality of the food the more will they benefit by it. And not only will they feed on farinaceous food, but on animal substances, grease, suet and milk, sugar and molasses too are consumed by them. I have found wheat-screenings, which I procured at the flouring mills, a very good and cheap article for fowls. Corn, if fed alone, should always be cracked, as I have known some cases which proved fatal by swelling and distending the crop to bursting.

But to feed economically, feeding hoppers or boxes should be constructed for that purpose; and the one figured above I have found to answer a good purpose.

It is very simple and easily constructed, as you may readily suppose, when I inform you that I made it myself. The dimensions are as follows: it is four and a half feet long, nine inches wide; end pieces fourteen inches high; the bottom four inches from the ground: a strip of board four inches wide is firmly nailed on the sides, raised two inches above the bottom, forming a manger or trough to prevent waste of food. Another strip three inches wide is nailed on the top in front to secure the ends. Narrow strips may be nailed to the top and bottom, leaving space enough for the fowls to enter their heads when eating. The hopper is formed by two pieces of boards nine inches wide set between the ends, as shown by the dotted lines like a V. They should extend to within half an inch of the bottom and from one to half an inch apart, according to the size of the grain. The top or roof may be the same width of the box, or it may extend over sufficient to protect the fowls from rain when eating. The length may be varied according to the number of fowls kept.

In the feeding of poultry I am convinced it is the best plan to keep feed constantly where they can help themselves whenever they desire it; and when it is kept constantly before them I think they will not consume as much as when fed at intervals from the hand. And for that purpose I would recommend the one described above, which I have had in use for the last six months.

The following is an improved *poultry feeding fountain*, published a few years since in the "Transactions of the Highland Society," in Scotland, and figured and described in "Loudon's Encyclopædia of Agriculture."

Improved Feeding Fountain—(Fig. 43.)

It may be made to contain any quantity of grain required, and none wasted. When once filled it requires no more trouble, as the grain falls into the receiver below as the fowls pick it away; and the covers on that which are opened by the perches, (the principles of which I do not understand,) and the cover on the top protects the grain from the rain, so that the fowls always get it quite dry; and as nothing less than the weight of a hen on the perch can lift the cover on the lower receiver, rats and mice, (which are very troublesome where grain is fed in the ordinary way,) are excluded. It is astonishing, too, with what facility the fowls learn to leap upon the perch, and so open the cover of the receiver, which presents the grain to their view and within their reach. On their leaving the perch or platform, the door, either by a spring or a weight, closes at once.

Water Fountain—(Fig. 44.)

Fowls, like some other bipeds of larger growth, prefer pure, clean water, and where a running stream cannot be had I would recommend a fountain like the figure above, which is nothing but a tight keg set on a three legged stool, with a small tube extending from the bottom to a shallow dish, basin or trough, which should be small, so that the fowls cannot get into it and soil the water. A demijon, carboy or jug may be used for the same purpose, and on some accounts the glass vessel may be preferred, as it can be easily perceived when empty.

And now, Messrs. Editors and gentle readers, if your patience is not entirely exhausted with this, my dull and I fear tedious essay, I will describe my chicken-coop, and bid you "good bye" for the present, fearing you may never wish to hear from me again.

Tent Coop—(Fig. 45.)

This is formed by nailing boards two feet in length, forming two parts of a triangle, like an inverted A, the ground forming the third, as I prefer having the fowls near the earth, so that we have only to remove the coop when necessary to cleanse it. It should be at least two feet long; one end may be boarded up tight and the other secured by nailing strips of lath, in the form of grates, leaving sufficient room between each for the free passage of the chicks without admitting the hen. There should be an earthen vessel or wooden trough for water, and a shallow vessel or a board in front to feed them on.

It was my intention to have followed this in the next No. of this paper, with a description of the *varieties* of domestic fowls, but have been relieved by Mr. Gaylord, who has prepared a very interesting, able and excellent article on the subject.

CALEB N. BEMENT

Management of Bees.

MESSRS. GAYLORD & TUCKER—I propose to prepare a series of short essays on the culture and management of bees, to be published in your valuable paper monthly, or as often as you think best, not to crowd out other matter of more importance. The following subject will be taken as basis on which I intend to predicate my remarks, to wit:

"*The condition and perfection of the brood combs and young broods in a hive of bees determines its success, and its profit to its owner.*"

In the discussion of this position, some hives and their uses may be examined, and bad management corrected, and in the course of the remarks I shall make, a new bee-hive will be proposed, a hive constructed on several entire new principles, differing from any other known, to my knowledge. It may be used as a swarmer, or a non-swarmer, as may be most agreeable to its owner. As it is so constructed that swarms may be divided off in the appropriate season for swarming; young and fruitful queens are raised to replenish and keep perfect the young broods—instead of having the brood combs vacated in consequence of old and barren queens, which is the sure result of all non-swarmers in the course of a few years, with which I am acquainted. I think I shall be able to send you a model next month, with an explanation of its uses. No principle of the Vermont bee-hive will be counteracted in this, nor any conflicting sentiments with those set forth in my manual on bees, will be advanced. In the course of the remarks I shall make, paralyzing bees by the use of fungus, and the practicability of doubling swarms for wintering, will be considered and illustrated. And also removing swarms or hives of bees after they are too old to be profitable by the use of the pruning knife.

As the perfection of the brood combs and young broods in the hives determines its success, the first thing to be attended to in the culture of bees, is, to furnish them with a suitable tenement, that will enable the bees to perform all their peculiar instinctive duties, and at the same time afford the greatest protection from their enemies. And here it should be remarked, that a box placed under a hive of bees affords the greatest possible protection to millers, moth-worms, spiders, and other vermin, inimical to the bees, as it forms a most ready retreat, and most perfect harbor for these insects to conceal themselves from the notice of the bees in the day time; moreover if this box is made in the shape of the roof of a house with the hive resting on the same, I can conceive of no invention that is so well calculated to facilitate the entrance of those night intruders; as the gable ends of the box afford a ready pathway for them when prowling out of their lurking place, and enable them to crawl directly up into the hive among the combs, and there accomplish their pernicious and deadly purposes.

A bee-hive that is designed as a swarmer should hold one and a half bushels, and be made with two apartments, upper and lower, by a horizontal partition, inserted at such a distance from the bottom as to leave a space which will hold one bushel, for the bees to use as a kitchen, as they will use this apartment to perform most of their labors and instinctive offices, by preparing their brood comb and raising the young bees here. In the chamber or upper apartment of the hive may be inserted drawers, globes or other vessels to suit the convenience or fancy of the owner. If rightly managed, pure honey only will be deposited in this apartment, as the bees will dispose of the pollen of flowers, or bee-bread, by storing it in cells in the immediate vicinity of the young, where it is wanted to feed the larvæ. It should here be remarked that a communication from one drawer to another should never be made (unless it is done to evade a patent right) for the labors of the bees are retarded until a sufficient number of bees are hatched to fill both drawers before they can make comb in either, as a perfect uniformity of heat is required to enable bees to make comb, the air in both boxes must be of the same temperature—and the communication will frequently deter the bees from depositing any honey in either. Moreover it will not be surprising if millers should be found on the outside of the boxes in the chamber of the hive.

It is not material in what shape a hive is made, except as a matter of convenience both to the bees and their owner; bees will build their combs in any shape adapted to the space they are made to occupy, in the most economical and best possible manner, to save themselves steps and time. I prefer a wedge form for the lower part of a bee-hive on account of its convenience in wedging the combs to prevent them from falling, and also to enable their owner in passing on their rear, to let down the bottom board so as to examine the interior of the hive without being compelled to disturb the bees by raising up the hive. No objection should be raised against a square hive or even a round one, admitting the bottom board can be suspended and closed at pleasure. As on the management of the bottom board, and other ventilating processes, depends the perfection of the young broods in the hive, in a great degree, this part of the subject will be considered more in detail. The bottom board ventilator, and even a proportion of the hive's mouth, corresponding with the number of bees in the hive, should be kept closed during the spring months, and at all chilly turns of weather during the breeding season, which usually lasts from March to October. There would seem to be an objection to this practice on account of the return of the moths among the combs again after the bees had dropped them down upon the bottom board. But when it is known that at this season of the year a moth worm was never known to make the attempt to return to the combs after he was dragged from the place of his concealment in his armor, his activity and ambition being at once subdued by the action of the atmosphere and rough treatment of the bees, the objection is removed at once, for it is but little trouble, and requires but little time to let down and clean off the bottom board, occasionally, until the hive is so replenished with young bees, as the weather comes in hot, so as to render a chill among the young broods impossible. Then the bottom board may be suspended three eighths of an inch below the edges of the hive, to enable them to keep any web from forming or worms from crawling up into the hive, as they are able to crawl up only in hot weather, at the same time the bees are able to reach this distance and raise themselves upon the edge of the hive; moreover, in hot weather I have seen bees form a rope or ladder, six inches in length, to enable any working bee to ascend upon the combs without being compelled to crawl up the side of the hive.

By the use of the bottom board a perfect ventilation in the draws is formed in hot weather by the buz of the bees in the lower apartments, by forcing more freely, good air, softened by animal heat, through the apertures into the draws, which expels the air that is exhausted of its vitality, (or pent heat) and enables the bees to prosecute their business in the draws to the best possible advantage. (This is what has brought chamber hives into use, and this is what constitutes one point of the letters patent in the Vermont bee hive.)

Truly yours, J. M. WEEKS.

Salisbury, Vt. Feb. 20, 1841.

Produce of Three Acres.

MESSRS. GAYLORD & TUCKER—I will give you the product in bushels and by count, of what grew on three acres and three rods of ground, in the summer of 1840. I will call it three acres, for there were four large apple trees on the land that little or nothing would grow under. I will also state the price that the articles have generally sold for at home or in New-Haven, 14 miles from this. And here let me state that notwithstanding all that has been said against the China tree corn and the extravagant price that it was sold for by the ear, I do think that our friend Thorburn has conferred a favor upon the agricultural community of America, in the article of corn that is worth thousands of dollars.

The three acres were stalk land in the spring of 1840, which produced the year before about 50 bushels of shelled corn to the acre. There was a light sprinkling of manure put on the land, and the rows split running north and south, about 25 rods long, which was all the plowing except where the flax, ruta bagas, and peas grew.

And first, 10 rows of rohan potatoes, product 75 bushels, worth 33 cents per bushel,	$24 75
One row of blue kidney, excellent for eating, 8 bushels at 37½,	3 00
40 rows of China tree corn, 90 bushels as sound as ever grew, at 62½,	56 25
Six bushels of white beans, sold at $1·50,	9 00
And here let me state that after my corn came up, and was hoed once, there was so much said against the China tree corn, I began to think I might lose the crop, so that I planted it all over with beans between the hills, and the product was as above stated.	
Five rows of pumpkins of all kinds, shapes, and colors, from the nut shell squash, to 100 pound *loafers*, 200 in number, besides the small ones, principally sold at New-Haven, from 6¼ to 17 cents apiece, call them 8 cents each,	16 00
100 cabbages fit for market, besides scores of small ones raised among the pumpkins, at 5 cents each,	5 00
Three rows of white flint corn, extra pains taken, dung in hill, no beans, product less than China tree, 6 bushels, at 62½,	3 75
Six short rows of broom corn, 28 brooms, worth 10 cents each,	2 80
Four bushels of seed, weight over 40 pounds per bushel, worth 37½,	1 50
22 hills of melons, used in family, say $1·00,	1 00
12 quarts of flax seed sowed the 14th of May, product 3 bushels of perfectly clean seed, worth $1·00 per bushel, and judged to be 100 of flax, that is worth here $12,	15 00
Four bushels and 18 quarts of perfect marrowfat green peas, as can be raised in this part of the country, from half a bushel of seed sown the 14th of May. I have sold a part of them at two dollars per bushel, the others will sell in the spring. And here I will observe I think that I lost half the crop of peas by the drouth, they were sowed too late,	9 12
125 bushels of ruta baga, sowed in drills 23d of June. On account of the drouth the greater part did not come up under four weeks, worth 25 cents per bushel,	31 25
Three large loads of corn fodder, worth for stock three dollars,	3 00
	$181 42

Perhaps some of the readers of the Cultivator may think that the prices here put to some of the articles are too high, but it is nothing more than the greater part of them have been sold for already, and the others will be, or fed out to stock. It is true the rohans, ruta bagas, cabbages or pumpkins, are not worth the price here put, to make pork or beef, or at the prices those articles fetch. I have kept no account of the expense of tending those three acres; and I will only say it was well done as every farmer's work ought to be done.

The potatoes and China corn, planted 25th and 27th of April, I should think that one-half of the main stalks of the China corn had two good ears, many three, and frequently four. I can say all ripe, not a soft ear in the piece, and seldom any moldy or swarthy. I have ten bushels of the China ears to sell for seed all gathered two ears from each stalk, no more nor less. And I will challenge any farmer in the state of Connecticut, to produce more bushels of corn, of any kind, or weight, from one acre, than I can next year, life and health spared, and extraordinaries excepted. If any of the readers should think that I am only a gardener, with a few acres of land, and that in the highest state of cultivation, they may know that those three acres are a part of my farm of 175, and in no better state than nearly 100 which is cultivated in wheat, rye, corn, oats, grasses, &c. every year.

You will readily perceive that my occupation is more in holding the plow, than in writing for the public prints. Yours, CLAUDIUS ALLEN.

Cheshire, New-Haven co. Conn. Feb. 14, 1841.

Culture of Indian Corn—Great Crop.

MESSRS. EDITORS—I send you a statement of Mr. ELIAS SHELDON, as delivered to the committee for awarding premiums on agricultural products, of the Cultural and Mechanic Art Society of Enfield, Somers, Ellington, and East Windsor. S. D. CHAPIN.

"The land on which I raised my crop of Indian corn the season past, had been under cultivation a number of years, and is what is denominated 'old field.' It had the previous year been sown to rye, the stubble of which was turned in sometime in the month of February, 1840. Nothing more was done to the land until about the 1st of May, when I carted upon the piece at the rate of 25 cart loads of manure to the acre, from my barn-yard. It was spread, and the cultivator passed over it so as to cover the manure. The land was furrowed each way with the plow at about three feet distance. The hills were made where the furrows intersected each other. A part of the piece was manured in the hill with well rotted manure, and a part with plaster of Paris. The corn was planted on the 17th day of May last, dropping into each hill four kernels of corn. The corn was carefully hoed twice, and at each hoeing the cultivator was used by passing it between the rows each way. At the second hoeing unleached ashes were dropped about the hills of corn at the rate of half a pint to a hill. The third hoeing was omitted, but the cultivator was used as before by passing each way between the rows. The produce was at the rate of one hundred and ninety bushels of ears of corn weighing forty-five and a half pounds per bushel, and two cart loads of pumpkins per acre. ELIAS SHELDON."

Somers, Conn. Jan. 30, 1841.

Winter Butter.

MESSRS. GAYLORD & TUCKER—There is scarcely one operation of the dairy more important to the farmer, than the manufacture of good butter; and in the winter time, experienced dairy-women are frequently disappointed in their endeavors to procure it.

The plan now used in my family with perfect and invariable success, was adopted from seeing its practical operation in the winter of 1825, in the family of Dr. Jones, of Halifax county, Virginia. Mr. Fessenden published an account of it in the first edition of his "Complete Farmer," in 1834; but having seen many plans recommended in agricultural journals during the present winter for making good butter, of rather an equivocal character to my mind, I feel persuaded that the method now in use by my family would prove a great saving in labor and cream, wherever adopted.

The process is simply this: As soon as your milk is brought in, strain it into tin pans or pails, of a suitable size, and set them upon hot coals, or where convenient upon a cooking stove, and allow the milk to heat gradually until the temperature is nearly up to boiling heat—from 130° to 150° Fahrenheit will answer. Then set them away and allow them to stand forty-eight hours. By this time the cream will rise in a thick leathery coat, and in quantity and quality that will surprise any one who has never before made the experiment. Take it off and churn it by stirring with a wooden paddle which is our method, or in any other convenient manner, and the butter will be produced immediately, and of the finest quality and flavor. The cream is perfectly separated from the milk by this method,—perfectly sweet, and there is never any disappointment in the speedy manufacture of the very finest quality of butter; and it gives more butter from the same milk than we have ever been able to obtain in any other way.

Cream may be rendered oily by heating, and butter entirely spoilt in flavor by heat, at a much lower temperature than I have suggested; but new milk will bear heat to any degree short of boiling, without the least injury to the cream which subsequently rises.

It has made my heart ache to see an industrious woman stand three or four hours over a churn, to be rewarded in the end, perhaps, by an indifferent turn-out of ill-looking butter of a doubtful flavor, and I trust I may be excused for urging the trial of this method upon every one who may not already have become familiar with it. The quantity and quality of the butter will be increased, and the labor of producing it most essentially diminished. Respectfully your friend,

WILLIAM S. WAIT.

N. B. For the convenience of heating milk in vessels adapted to that purpose, it may be well to state the fact for the benefit of those who may not already be acquainted with it, that all the cream will rise from milk as speedily and effectually when set away in a deep pan or pail, as in a shallow vessel,—and the process of skimming rendered more easy and convenient.

Greenville, Ill. Feb. 3 1841

The Sugar Beet.

Messrs. Gaylord & Tucker—I have noticed in the late numbers of the Cultivator, Dr. Guthrie's and Mr. Bement's attacks on the sugar beet, insinuating that it is an almost worthless root for the feeding of stock; and as the opinions of these gentlemen, with partial experiments, are directly at variance to those of the most eminent agriculturists of France and Germany, after an experience of more than thirty years, and to those also of many of our own countrymen, after trying it with satisfactory effect about five years; and as I had the honor of appearing in the last May number of the Cultivator, strongly recommending its production and feeding, I feel bound to make some comments on these communications, and reiterate my own experience in the feeding qualities, of what I consider as one of the most valuable of roots.

I am perfectly satisfied by Doct. G.'s statement of the analysis that he made of the beet, vol. viii. page 40, that he was either grossly imposed upon in the purchase of seed, and had grown the mangel wurtzel instead of the white Silesian, or that he had planted it in so rich a vegetable soil, as to produce so rank a growth as to almost totally destroy the saccharine matter that is usually found in it, especially when he adds, that "the beets brought upon our table are totally destitute of sweetness." Now I have not only my own taste for three years in succession, to prove that sugar beets raised in and about Buffalo, are exceedingly *sweet* and nutritious, but can also bring a hundred witnesses any time to corroborate the assertion, from their own daily eating. The famous blood beet cannot compare with the sweet, tender Silesian, and as for mangel wurtzel and other beets, they are almost tasteless after them; and they are never boiled in a pot by themselves, that there is not a sweet syrup left at the bottom, almost of the thickness and agreeable taste of sugar-molasses, which, in my opinion, only wants to be clarified and granulated, to make good sugar. So much for personal taste and experience; now for that of stock. I know that fed raw to cows, they considerably added to the quantity and especially the quality of the milk, making the butter as sweet, and almost as yellow as is produced on fresh summer's grass: they also kept them, with the addition of hay alone, in the best possible order; and the young stock fed on them, together with hay, were as fat and almost as fine and glossy in their coats, as when on the best of summer pasture. I never tried them with horses, but should hardly think them hearty food enough for those at work. Not keeping sheep, of course I could not experiment with them; but others speak very flatteringly on this point, as may be seen from some communications that went the rounds the year past in most of the agricultural papers, copied, I think, from the Philadelphia Cabinet. Beets there were said to produce the best of mutton and the finest of wool.

The most important use, however, that I have made of them is with hogs. But as my breeds embrace only the China and Berkshire, it is in reference to these superior animals alone that I can speak, and here it seems that Doct. Guthrie's Berkshires did tolerably well, while his others almost starved. The first winter I kept my grown swine partly on beets and partly on potatoes, raw; the second winter almost exclusively on raw beets, thrown to them on the ground. I did not notice any difference whatever in their appearance during these two seasons, but each time they were kept in as good flesh as I ever wish to have breeders, and they were by no means allowed to eat their fill of them either. The third winter, (the last) having erected a steaming apparatus, with a new piggery, I commenced cooking the food for my hogs, and have frequently steamed beets alone and fed them to all ages, from the pig two months old up to the grown animal of four years. To the last, I had to stint them to a common water pail half full twice a day, or say from eight to ten quarts, or they would get too fat for breeding, and as to the former, with the addition of a trifling quantity of corn, I never saw animals thrive better, or more contented in my life. They would fill their bellies and lie down in their straw, and dose away for hours together, as contented as puppies and as whist as mice; and this stock thus treated, I am not afraid to show, either for general size or fineness of point, against any thing in the United States, saving my late importation, and that only for great weight, these last being somewhat of a larger class than is usual among Berkshires. During this same winter I steamed a mixture of carrots and potatoes with the beets occasionally, but in feeding I found that as a general rule, the pigs would pick out the beets first, the potatoes second, and only eat the carrots when hungry at the last; but if any one were to ask which I thought the most nutritious, I should say the potato without doubt. My accommodations are too limited, however, to make the careful experiment as to the relative value of roots, bushel for bushel, and again in comparison with grain, as requested by Mr. Caton, of Illinois, but I trust that the above will be satisfactory to him and to others, so far as it goes, for it is experience and not theory. I must say that I do not like this jumping at conclusions from partial experiments. I recollect reading an address some two years ago, by some one in Pennsylvania, before an agricultural society, in which the writer maintained—and he seemed to be an intelligent, scientific man—that ruta baga, by analysis, was but little else than wood, and therefore, as a food for man and beast, it was almost totally worthless. Indeed! And yet this same despised root, together with a little straw, makes most of the English beef and mutton, and in some instances at times one-fourth supports its laboring population. Appropos to this, I recollect once telling an intelligent neighbor that I cultivated pumpkins a good deal, and liked them much as food for swine. "Well," he replied, "they never did anything for my hogs but scour them." The fact was, he had an *inferior breed* of animals. Again, I shut up some Berkshire sows that were quite poor, about three weeks, to put them in condition; they were allowed nothing but pumpkins during this time, and were then turned out, having got really, in that short time, almost too fat for good breeding. An intelligent gentleman who had seen them previous to their being shut up, and then again when they were let out, acknowledged that nothing but seeing the thing with his own eyes would have convinced him of the truth of it, and wound up by adding, (I do not give the words exactly, but the ideas,) "why instead of fatting them, the urine that would have come from common hogs, thus fed, would have made them skeleton poor by this time."—I am no chemist and therefore humbly ask, what would be the analysis of clover? Not much, I fancy, but water. And yet Berkshires, and in fact, all good crosses of the China hog, will keep fat upon it in summer and grow well; and I will conclude this long letter on sugar beets by saying, that if their stock does not thrive upon them, why then gentlemen have been deceived in their seed, or they have not got the right sort of animal to consume the roots.

Like Judge Garnett of Virginia, I have occasionally eat Rohan potatoes; whether I was in my "right senses" or not at the time, I can't say, but this is the conclusion that I came to at the different times I partook of them, that they were only of about a third-rate table quality. Yours, A. B. ALLEN.

My compliments to Mr. Howard of Ohio, with acorrection of his quotation of my opinions of Herefords as expressed in the October number of the Cultivator. I there said that "in *comparison* with these," viz. Messrs. Corning's and Sotham's "all others that I had ever seen had narrow hips, thin loins," &c., not simply that they "were narrow at these points," as he makes me write in his communication in the last January number of the Cultivator.

February, 1841.

The Hessian Fly.

Messrs. Editors—The vast amount of wheat annually destroyed, (or supposed to be,) by the wheat or Hessian fly, as it is called, ought to induce every intelligent cultivator of this best of grain to investigate the subject with more care and attention than they yet have done. As yet opinions as to the cause or a remedy are conflicting and various. Some say that the fly deposites its eggs on the grain in the ear, while standing; there it remains until the grain vegetates; and after the wheat has formed one or two joints, it gets up between the stalk and the leaves and there brings forth the fly. Others say that this fly deposites its eggs in autumn at the first or second joint of the growing wheat; and many believed that if they deferred sowing until after frost, the fly would be dead and the wheat safe, but here they were disappointed, and soon discovered that the spring wheat was also destroyed. Where does the fly winter, or where is it hatched early enough to deposit eggs in the spring wheat long before any are hatched in the winter wheat? Will any of those who believe that the eggs are deposited on the grain, tell us how they get up to the second joint of the wheat between the leaves and the stalk without possessing any power to move, or any apparent animation?

I had not been long engaged in the cultivation of wheat, before my attention was drawn to this subject. I found the eggs that destroy the wheat at the joint, usually the second joint, between the leaves and the stalk. In the earliest stage that I have seen them, they were nearly the size and shape of a small grain of rye, of the same color as the stalk where they were—a pale green, semi-transparent—standing up lengthwise of the stalk, with a minute filament at their lower extremity, as though they had been attached to the joint. In a few days after this, they were white, and after another short period they are brown, hard, and much enlarged, pressing so upon the stalk as effectually to stop its growth. The leaves now receiving more than their usual nourishment, become larger and deeper colored, so that they may easily be distinguished from the other wheat at some distance. Occular demonstration compels us to believe many things that we otherwise would not. After mature reflection on what I have seen and read on this subject, I am induced to believe that the eggs which destroy the wheat, are produced by, and grow in diseased or unhealthy wheat; that this wheat has become diseased or unhealthy by one or more of the following causes. 1st. Bad seed, old, shrunk, or otherwise imperfect. 2d. The ground naturally or otherwise unsuitable. 3d. The weather too warm and moist, or perhaps too much electricity in the air. When the first and second cause prevails, the wheat will be injured only in pieces so circumstanced. When the third cause prevails, whole districts will be injured. I am aware that by many I shall not be considered orthodox in this matter; and they will perhaps smile at the idea of a vegetable producing an animal. They must recollect that the lower order of animals approach in constitution so near to a vegetable, that naturalists cannot agree where to draw the line of separation. Who would believe that a horse hair immersed in water warmed for a short time by a summer sun, would become an animal, having every appearance and motion of a snake, if we had not seen it? Can they believe that an egg is deposited by its parent for each animalculæ that we find swarming in most liquid substances exposed to warm weather? What is an egg but a fortuitous assemblage of organic particles, which, when operated upon by a certain degree of warmth a given time, produces an animal? Mr. Cross produced insects by passing the electro-magnetic current through silicate of potash. I believe there is no better remedy, than to sow only new, sound, and healthy wheat on the most suitable ground prepared in the best manner; use lime, and put your manure on a previous crop.

Morristown, N. J., 1841. R. K. TUTTLE.

The Rohan and Silver Lake Potatoes.

Messrs. Gaylord & Tucker—Frequent communications have appeared in the agricultural papers for the last few months, in relation to the qualities of the Rohan potato. It is doubtless true, that we, as a people, are somewhat prone to be taken up with new things, but I imagine a greater difficulty with many of our farmers, is, an unwillingness to adopt improvements, when they are truly important, solely because they are new. And it appears to me evident, also, that when a single experiment in relation to any new grain or vegetable, does not exactly equal all that the cupidity it may be, of the experimenter expected, the article is at once cried down, and pronounced a cheat, or it is said, "*It is done for a speculation.*"

Now I do not pretend, that all that has been said about Rohan potatoes is true—neither do I believe that all that has been said against them is any nearer the truth. In this, as in many other matters, the truth lies between the extremes. I have raised the Rohans for three seasons, and if my experience is worth any thing, it is, that the Rohan is a very productive potato and of very good quality. The first season I planted but a few; the next I planted a bushel, and the yield not far from one hundred bushels. Last season I planted five bushels on an acre of ground, and although the season with us was unfavorable for the soil which was occupied, yet the yield was equal to nearly 400 bushels to the acre, while other varieties in the same field and under the same culture, yielded much less, besides using three times as much seed to the acre.

I fattened my hogs mostly upon these potatoes, occasionally throwing in sugar beets to vary their food—and I venture to say a finer lot of pork or better fattened, was not raised in this region. The hogs were mostly half blooded Berkshires and Chinas—and they did remarkably well—and I have never fattened hogs at so little expense, by at least one-third. Your correspondent, H. D. Grove, speaks of the Merino potato. I have raised them, and I consider the difference in the nutritive qualities very great, and entirely in favor of the Rohans.

I have not used the Rohans much as a table potato, because I have varieties more choice; but I can say, to those who call them "*abominable*," that if their wives understand how to cook potatoes as they ought to be cooked, they will find very many kinds of potatoes which deserve such an appellation rather than the Rohans. My Rohans boil up very mealy and are a solid potato, and remarkably nutritious. I regret very much to see such sweeping denunciations as are contained in some of the communications in your paper. In your February number, S. Guthrie has made a furious attack upon the sugar beet—and it may be the beet deserves all the hard words that are spoken of it—but I believe such kind of communications have a tendency to weaken the confidence of the community in statements which are made in our agricultural journals.

I have another variety of potato, which I procured in Ellington, Conn. two years since, called the *Silver Lake*, which I believe is a better potato than the Mercer or Pinkeye, and is a much better bearer—the yield is full one-third greater than the Mercer. I have a considerable quantity of these potatoes, and if they prove on further trial, as choice as they now appear to be, you may hear from me again. B. P. JOHNSON.

Rome, Oneida county, N. Y. Feb. 23, 1841.

Preservation of Bacon—Wintering Calves.

Messrs. Editors—As the season is rapidly approaching when all good house-wives feel a natural solicitude for the preservation of their bacon, permit me to inform such of your readers as may not be apprised of the fact, that by white-washing their bacon, they can preserve it, perhaps, more economically and effectually, than by adopting any other of the various modes which have been recommended for this purpose. A respectable neighbor of mine has saved his bacon in this way for the last twenty years, without the loss of a single piece. Early in the spring, after his meat is well cured, he gives his bacon a good coat of white-wash, with the common brush, on the fleshy side and on the ends of the hocks, sprinkling a small quantity of fine ashes on the moist white-wash, and hangs it up again in his smoke-house, where it is permitted to remain until it is taken down for use. The process does not injure the meat in the slightest degree. It owes its efficacy, obviously, to the fact that the hard crust it forms over the bacon, prevents the fly from depositing its eggs in it. Any other means, which would exclude the fly from all access to

the meat, such as burying it in salt, oats, &c. covering it with canvass bags, plastering it with ashes, &c., would, of course, be equally effectual.

Never wound your meat until you use it, for the fly will be sure to deposit its eggs in the wounds. A friend of mine lost a number of hams last summer, in consequence of his wife's thrusting a knife into them to ascertain their quality.

To preserve meat well, a smoke-house should be roomy, dry, cool, and dark, and yet sufficiently open to permit a free circulation of air, otherwise your bacon will be soft, damp, and rancid. On this account, wooden smoke-houses are greatly preferable to those constructed of brick and stone.

It is a great, yet very prevalent error, to smoke bacon in wet and damp weather; for by smoking it at such seasons, the "*sweat*" which then collects upon the meat, and which has a peculiarly disgusting taste, is driven into it and dried upon it, and impairs its flavor. Smoke only in dry weather. If your meat is well cured, the only use of smoking in summer time, is to expel the fly from the house.

If any of your readers smack their lips as heartily as I do over a *good old Virginia ham*, that fairly melts in your mouth, they will not fail to observe these plain directions for the preservation of their bacon.

As my sheet is not quite full, I will add a word on another subject.

Passing recently by the farm of a distinguished agriculturist of this county, I espied on one side of the lane, the grim carcasses of a brace of calves, from whose naked skeletons a flock of voracious crows were vainly endeavoring to tear a scanty repast. Now, Messrs. Editors, I beg leave to inquire most respectfully, whether, in your opinion, the most economical mode of carrying those useful animals (*carrion crows*) through the winter, is, *by feeding them on veal?* or whether it would not be better policy in our farmers, though not perhaps so patriotic or public spirited, to give their calves a small quantity of bran or meal daily in the fall to put them in order to go through the winter—to sow a patch of rye in August or September, for winter and spring pasture for them—and to house comfortably, and feed well with fine hay and meal in cold and inclement weather? If our farmers would pursue this course, they would have in the spring vigorous, well grown, thrifty calves, that would soon come to maturity; instead of a miserable remnant of poor, weak, stinted, lousy skeletons, that are a disgrace to the flock. Take good care of your *young* stock of all kinds! If you must neglect any, let it be the old and vigorous, rather than the young and tender. CORNELIUS C. BALDWIN.

Rockbridge co. Virginia, March, 1841.

"American Society of Agriculture."

MESSRS. GAYLORD & TUCKER—I have this morning been carefully perusing the communications of Messrs. ROBINSON, GARNETT and GORDON; all excellent, and beyond my faint praise, and I trust they are not alone; Mr. Gordon's views are nearly identical with my own, as communicated to Judge BUEL years since, and to you in my last. In regard to a National School, we differ only in details; to prevent confusion, let all details be omitted for the present, and prepare for a convention, to deliberate on our country's best interests. It would be desirable to have each State and Territory represented, but I would not be particular in following geographical lines, congressional districts, or old obsolete paths; let the convention come together from a pure regard to the cause; and to the end that this may be done, and well done, you must reflect that you were early pointed out, after the death of the lamented Buel, to fill his place, (and I know by whom,) and you, following the leadings of Providence, as Mr. Lawrie Todd would say, are now looked up to by the farming interest of this country as their organ and leaders; I pray you then, rid yourselves of your diffidence, follow the wishes of your friends, charge all miscarriages to them if you will, but let us have the convention coming through your call. Who knows better who to call? No one. Let it be made general from your paper if you will, or ask advice from one or more of your correspondents in the different sections of our country who will be likely to attend, and promote this great cause, to whom you can send your circulars of invitation, and receive from them answers as pledges of attendance; and if no more are present than your friends Robinson, Garnett, Gordon, and I know Mr. Ellsworth will be there, with your friend from near Boston, you may expect no injury will be done the cause, but much good may result from *such* a convention. Relying on your aid, I enclose you ten dollars to form a nucleus in defraying the early expenses, and trusting you will be fully sustained in all your doings, save your extreme diffidence, I subscribe myself your friend, NEAR BOSTON.

Cure for Blind Staggers.

EDITORS OF THE CULTIVATOR—Your correspondent R. L. asks,—"Is there no remedy for diseases in swine," and states his loss of a number of valuable hogs by the Blind Staggers. The remedy for that disease is simple, and has been used with great success. I once had 17 shoats taken down in one day with the Blind Staggers. My family supposed they had been poisoned. I secured each one with a rope around his upper jaw, so as to keep his head still, and with a sharp knife made an incision in the forehead about 2 inches in length. I then loosened up the skin on each side of the cut, and filled the place full of fine salt—nothing more. Fourteen out of the 17 were well the next day. I have tried it repeatedly, and always with success, when taken in season. Care should be taken to cut *only* the skin and not let the knife touch the bone. Charcoal is cleansing, and a good preventive, but I apprehend not a powerful remedy. Respectfully yours, WM. THURBER.

Cranton, R. I. March 17, 1841.

Root Steamers, &c.

MESSRS. EDITORS—In the Feb. number of the Cultivator, your correspondent "R." has atempted to make himself a little witty at my expense. Although he is well known to me, he may not be to all the readers of this paper, and I do not approve of these attacks in the dark, and now enter my solemn protest against it. When *names* are called, let the *names of the writers* be given, and not stand behind the curtain and launch forth their *sportive* arrows, regardless of consequences.

I was not aware, until your correspondent "R." informed me, that I was "one of the committee on modern inventions," nor that I had erected a steam boiler on the "*scientific* principle of exposing the least possible surface to the action of the fire, to procure in the smallest space of time and with the least expenditure of fuel, the greatest quantity of steam." Nor do I recollect of ever having recommended "a wooden box and sheet iron bottom" for *steaming* vegetables. But I do recollect of having some private conversation with him on the subject. The one I have had in operation, and the one which I presume he alludes to, was for *boiling* and not for steaming, and answered a very good purpose while it lasted. It was not used during the summer, and when we commenced using it in the fall it leaked so much that I was obliged to abandon it.

I must confess I was not a little surprised that R., abounding as he does in *scientific* knowledge, should ever attempt to raise steam in so frail a vessel as a "wooden box, with a sheet-iron bottom."

The apparatus described by your worthy correspondent, SOLON ROBINSON, Esq. is quite a different thing from the one described by R.

As evidence of what I said in recommendation of Robinson's Steamer, I would beg leave to call your attention to the following, from a letter I lately received from a gentleman who has one in use: "I have," says he, "one of Robinson's Root Steamers in operation and it works admirably well; the door shuts snug and tight, and requires no weight to hold it, nor is it necessary to raise high to cook potatoes. After the steam raises so that we can see it forcing through the sides of the door, we stop putting in fuel, spread the coals over the bottom, shut the mouth of the furnace tight, and in fifteen minutes they are completely cooked. The only fault I find with this steamer is, it takes too much wood; still it saves a vast deal of labor, and I prefer it to any other I have seen."

As regards "Mott's Agricultural Furnace and Cauldron," I have only to say, that "a further trial" has confirmed me in my first opinion, and the only objection to the one I have is, that it is too small for my establishment.

In recommending this boiler I had no particular "consideration for the inventor" in view; nor did I wish to "withhold from the public a knowledge of defects." I found one in Albany and had the privilege of trying it—by paying $21, and I have no doubt but the same privilege would be granted to others, should they make application.

I would beg leave to call the attention of the inventor to the following query by R. "Would it not be an advantage to have the rim of the cauldron so cast as to admit a close cover or a steamer to set close over it? and why not have points of attachment cast on the boiler so that it may, with a small crane or lever, be raised from the stove, and its contents 'upset' in a 'receiver'?"

A very similar question is asked by another correspondent as follows: "Now, sir, my object in writing to you, is to inquire whether one of those Agricultural Furnaces (Mott's) with a cauldron that would hold three pails of water would be sufficient to steam fifteen bushels of roots? the cauldron to have a tight cover and a steam pipe leading into one of Robinson's Steamers, would, I think, be far preferable to either separately."

I approve of the above suggestions and have no doubt of their practicability, and recommend them to the favorable notice of Mr. Mott.

Before closing this long, and to many uninteresting essay, I will remark, that in *my experience*, I have never been successfull in steaming vegetables, and have adopted the "old fashioned way of *boiling* potatoes," and am "best satisfied with it," and if R. has mistook "steaming" for "boiling,"—it is his fault, not mine, and if his disappointment has been great, I can only say, I regret it. CALEB N. BEMENT.

A Challenge.

Butternuts, March 18, 1841.

MESSRS. GAYLORD & TUCKER—I sometimes get a peep at the Cultivator, and am sure to find something good in it, though I am no book farmer, as you may pretty well know by this. The last paper said pretty considerable much about Herefords being good milkers. I am myself an old countryman, but never heard of Hereford cheese or Hereford butter; but I know a great deal of Welsh butter is eaten in Herefordshire. Now if you think so much of the Herefords for milk, I will go into a fifty dollar sweep-stakes with Mr. SOTHAM, [money in your hands by the 25th of this month,] with a Short Horn pure bred heifer, now under my care, in calf with her first calf, against any other untried heifer of the Hereford breed of pure blood not calved at the time of accepting my challenge. The heifers to be milked at some agreed time for six successive days, and the milk weighed on the spot in presence of our respective friends, twice a day, who will attend at fixed hours for milking; and the greatest amount of milk given in the 6 days will decide the question.

No rule is without an exception, and there may be one good milker in a herd of Herefords, but if Mr. SOTHAM has confidence in the breed of his cows, let him take a heifer and trust to her blood and good family milking.

I will name to you the heifer *Dahlia*, a red roan *now* in calf to Archer, with her first calf—daughter of Daisy—g. d. Yellow Rose—g. g. d. Arabella. Some of your readers will know those cows, and the heifer is too well known to allow of any mistake being made as to which is the animal.

The heifers to be milked, I should say from the first Monday in June 7th to Saturday night 12th.

Mr. Alexander has a heifer now with her first calf, over a month old, and now gives eleven quarts a day more than her calf than take If any body doubts, try him with a challenge. If you think me pretty short in my time, it is that, if accepted, it shall be done while Mr. Sotham is as ignorant of my heifer, as I am of his. It is enough that she is an untried heifer in calf with her first calf.

If he accepts my challenge to a sweep-stakes, let him plank the money, and show you and some friend you may take with you, the heifer. Yours, &c., I. MILLER.

March 20.—Dahlia calved this morning. It is before her time; but I think it won't hurt her, though it is too long a time before the trial; but I live in a cold country, and we have but little grass till June.

Experiments with Poudrette.

D. K. MINOR, agent of the New-York Poudrette Company, has furnished us a communication on its use, by a gentleman from Pelhamdale, which we are obliged to condense; merely remarking that we think this manure one of the most valuable kind, and hope the companies preparing it, will receive ample encouragement as we are sure it is deserved.

J. H. Esq. says—"I consider it superior to any manure I have ever used. On potatoes, the seed and soil being the same, those manured with poudrette came up four days the earliest, maintained their ascendancy throughout the season, and gave the greatest and best product. For corn there is no other manure that can come in competition with it. I planted a fortnight after my neighbors had planted, yet in three weeks my corn was farther advanced than any near me. There was less soft corn than I have ever had in proportion to the quantity of good corn. It was planted about the 28th of May, and cut up and removed the 1st of September. As a top dressing to grass it is invaluable. I had sowed some grass seeds in October; but in March there was little or none to be seen. I had the ground raked, some poudrette spread lightly over it, and half the usual quantity of clover seed sown on it. The effect was truly astonishing. It was cut in June, and August, and part in October, and remained fresh and green till snow fell. For turneps, I know poudrette to be almost a certain guard against the fly. Mine this year, were as fine as were ever raised in this county, while many about have failed. I put the poudrette on the drill after the turnep seed, the quantity very small, looking like a train of gun powder. For cucumbers and melons, &c., I think poudrette mixed with peat earth the best manure I have tried; I raised very fine watermelons on sand, with this compost the past season."

To Correspondents.

THOUGH we have used in part a smaller type, and devoted a larger portion of our paper than usual to the favors of our correspondents, we find ourselves unable to insert several, which we had intended to give in this number; among these are the favors of Mr. WEEMS, Mr. ARMSTRONG, Mr. MORRIS, "L. B." Mr. MARKS, "N. N. D.," Mr. TOMLINSON, SENEX, Mr. DURAND, "M. Y. T." and others, which shall have a place in whole or in part in our next paper. Several other communications are also already filed for insertion as early as possible, among which we may mention those of Mr. SEELY, Mr. GARNETT, Mr. TILGHMAN, Mr. BRECK, Mr. CURTIS, Mr. MATHER, Mr. WESTFALL, Mr. NICHOLS, Mr. DIEHL, Mr. STEVENSON, J. F. L., &c.

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